

- <110> Cheikh, Nordine
Fisher, Dane
Liu, Jingdong
- <120> Nucleic Acid Molecules And Other Molecules Associated With
The Sucrose Pathway
- <130> 04983.0015.US01/38-21(15089)B
- <150> No. 60/067,000 filed November 24, 1997; No. 60/069,472
filed December 9, 1997; No. 60/072,888 filed January 27,
1998; No. 60/074,201 filed February 10, 1998; No.
60/074,282 filed February 10, 1998; No. 60/074,280 filed
February 10, 1998; No. 60/074,281 filed February 10,
1998; No. 60/074,566 filed February 12, 1998; No.
60/074,567 filed February 12, 1998; No. 60/074,565 filed
February 12, 1998; No. 60/075,462 filed February 19,
1998; No. 60/074,789 filed February 19, 1998; No.
60/075,459 filed February 19, 1998; No. 60/075,461 filed
February 19, 1998; No. 60/075,464 filed February 19,
1998; No. 60/075,460 filed February 19, 1998; No.
60/075,463 filed February 19, 1998; No. 60/076,912 filed
March 6, 1998; No. 60/077,231 filed March 9, 1998; No.
60/077,229 filed March 9, 1998; No. 60/077,230 filed
March 9, 1998; No. 60/078,368 filed March 18, 1998; No.
60/080,844 filed April 7, 1998; No. 60/083,067 filed
April 27, 1998, "Nucleic Acid Molecules and Other
Molecules Associated with Plants.(soymon016)" docket
No. 38-21(15348)A filed April 29, 1998; No. 60/083,387
filed April 29, 1998; No. 60/083,388 filed April 29,
1998; No. 60/083,389 filed April 29, 1998, "Nucleic Acid
Molecules and Other Molecules Associated with the
Phosphogluconate Pathway." docket No. 38-21(15365)A
filed April 30, 1998; No. 60/085,224 filed May 13, 1998,
No. 60/085,223 filed May 13, 1998; No. 60/085,222 filed
May 13, 1998; No. 60/086,186 filed May 21, 1998; No.
60/086,187 filed May 21, 1998; No. 60/086,185 filed May
21, 1998; No. 60/086,184 filed May 21, 1998; No.
60/086,183 filed May 21, 1998; No. 60/086,188 filed May
21, 1998; No. 60/087,422 filed June 1, 1998; No. 60/089,
524 filed June 16, 1998; No. 60/089,810 filed June 18,
1998; No. 60/089,814 filed June 18, 1998; No. 60/089,793
filed June 18, 1998; No. 60/090,170 filed June 22, 1998,
No. 60/090,928 filed June 26, 1998; No. 60/091,035
filed June 29, 1998; No. 60/091,405 filed June 30, 1998,
No. 60/092,036 filed July 8, 1998; No. 60/099,667 filed
September 9, 1998; No. 60/099,670 filed September 9,
1998; No. 60/099,697 filed September 9, 1998; No.
60/100,674 filed September 16, 1998; No. 60/100,673 filed
September 16, 1998; No. 60/100,672 filed September 16,
1998; No. 60/101,131 filed September 21, 1998; No.
60/101,132 filed September 21, 1998; No. 60/101,130 filed

September 21, 1998; No. 60/101,508 filed September 22, 1998; No. 60/101,344 filed September 22, 1998; No. 60/101,347 filed September 22, 1998; No. 60/101,343 filed September 22, 1998; No. 60/101,707 filed September 25, 1998; No. 60/104,126 filed October 13, 1998; No. 60/104,128 filed October 13, 1998; No. 60/104,127 filed October 13, 1998; No. 60/104,124 filed October 13, 1998, No. 60/104,123 filed October 13, 1998; No. 60/109,018 filed November 18, 1998; No. 60/108,996 filed November 18, 1998, "Nucleic Acid Molecules and Other Molecules Associated With Plants" docket No. 38-21(15075)B filed November 24, 1998; No. 09/210,297 filed December 8, 1998, "Nucleic acid Molecules and other Molecules associated with Plants" docket No. 38-21(15668)A filed December 11, 1998; No. 60/113,224 filed December 22, 1998 and "Nucleic Acid Molecules and Other Molecules Associated with Transcription in Plants" docket No. 38-21(15300)B filed January 12, 1999

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No. 60/067,000 filed November 24, 1997; No. 60/069,472 filed December 9, 1997; No. 60/072,888 filed January 27, 1998; No. 60/074,201 filed February 10, 1998; No. 60/074,282 filed February 10, 1998; No. 60/074,280 filed February 10, 1998; No. 60/074,281 filed February 10, 1998; No. 60/074,566 filed February 12, 1998; No. 60/074,567 filed February 12, 1998; No. 60/074,565 filed February 12, 1998; No. 60/075,462 filed February 19, 1998; No. 60/074,789 filed February 19, 1998; No. 60/075,459 filed February 19, 1998; No. 60/075,461 filed February 19, 1998; No. 60/075,464 filed February 19, 1998; No. 60/075,460 filed February 19, 1998; No. 60/075,463 filed February 19, 1998; No. 60/076,912 filed March 6, 1998; No. 60/077,231 filed March 9, 1998; No. 60/077,229 filed March 9, 1998; No. 60/077,230 filed March 9, 1998; No. 60/078,368 filed March 18, 1998; No. 60/080,844 filed April 7, 1998; No. 60/083,067 filed April 27, 1998, "Nucleic Acid Molecules and Other Molecules Associated with Plants.(soymon016)" docket No. 38-21(15348)A filed April 29, 1998; No. 60/083,387 filed April 29, 1998; No. 60/083,388 filed April 29, 1998; No. 60/083,389 filed April 29, 1998, "Nucleic Acid Molecules and Other Molecules Associated with the Phosphogluconate Pathway." docket No. 38-21(15365)A filed April 30, 1998; No. 60/085,224 filed May 13, 1998, No. 60/085,223 filed May 13, 1998; No. 60/085,222 filed May 13, 1998; No. 60/086,186 filed May 21, 1998; No. 60/086,187 filed May 21, 1998; No. 60/086,185 filed May 21, 1998; No. 60/086,184 filed May 21, 1998; No. 60/086,183 filed May 21, 1998; No. 60/086188 filed May 21, 1998; No. 60/087,422 filed June 1, 1998; No. 60/089,524 filed June 16, 1998; No. 60/089,810 filed June 18, 1998; No. 60/089,814 filed June 18, 1998; No. 60/089,793 filed June 18, 1998; No. 60/090,170 filed June 22, 1998, No. 60/090,928 filed June 26, 1998; No. 60/091,035

filed June 29, 1998; No. 60/091,405 filed June 30, 1998,
 No. 60/092,036 filed July 8, 1998; No. 60/099,667 filed
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 128 filed October 13, 1998; No. 60/104,127 filed
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 18, 1998, "Nucleic Acid Molecules and Other Molecules
 Associated With Plants" docket No. 38-21(15075)B filed
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 Associated with Transcription in Plants" docket No.
 38-21(15300)B filed January 12, 1999

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atcaaggact ggagcaacgt agttgttgcc tatgaaccag tttgggctat tggaactggt 240
aaagttgcca cccagctca ggctcaggaa gtgcacgcct ccctg 285

<210> 30
<211> 337
<212> nucleic acid
<213> Zea mays

<400> 30

aaaggtcatt gcatgtgttg gtgagaccct tgagcagagg gaggctgggt ctaccatgga 60
tgttgttgct gcacaaacaa aagcaattgc tgagaagatc aaggactgga gcaacgtagt 120
tgttgcctat gaaccagttt gggctattgg aactggtaaa gttgccaccc cagctcaggc 180
tcaggaagtg cacgcctccc tgagggattg gctaaagacc aatgccagcc ctgaggttgc 240
tgaatctact aggatcatct acggaggctc tgtaactgct gcgaactgca aagagctagc 300
agcacagcct gatgtcgatg gttttcttgt cgggtgga 337

<210> 31
<211> 302
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (31)
<223>

<400> 31
 cccacgcgtc cgcggacgcg tggggagtg nctaccgag atgggcccga agttcttcgt 60
 cgggtggcaac tggaaatgca atggaaccac agatcaggtc gagaagattg tcaaaacact 120
 gaatgaagga caggttcccc cttcagatgt tgtggaggtc gttgtcagcc ctccttatgt 180
 cttccttcct gtggtaaga gccagctgcg ccaagagttc catgttgctg ctcagaactg 240
 ctgggtgaag aaggagggtg ctttcaactg tgaagtcagt gctgagatgc tcgtcaacct 300
 tg 302

<210> 32
 <211> 256
 <212> nucleic acid
 <213> Zea mays

<400> 32
 gccagctgcg ccaagagttc catgttgctg ctcagaactg ctgggtgaag aaggagggtg 60
 ctttcaactg tgaagtcagt gctgagatgc tcgtcaacct tgggtgtccc tgggtcattc 120
 ttggacactc tgaaaggaga gctctgctgg gagaatcaaa tgaatttggt ggagacaagg 180
 ttgcgtatgc cctgtctcag ggactaaagg tcattgcatg tgttggtgag acccttgagc 240
 agagggaggc tgggtc 256

<210> 33
 <211> 268
 <212> nucleic acid
 <213> Zea mays

<400> 33
 cccacgcgtc cgggtgttggg gagacccttg agcagagggg ggctgggtct accatggatg 60
 ttgttgctgc acaaacaaaa gcaattgctg agaagatcaa ggactggagc aacgtagttg 120
 ttgcctatga accagtttgg gctattggaa ctggtaaagt tgccacccca gctcaggctc 180
 aggaagtgca cgcctccctg agggattggc taaagaccaa tgccagccct gaggttgctg 240
 aatctactag gatcatctac ggaggctc 268

<210> 34
 <211> 254

<212> nucleic acid
 <213> Zea mays

<400> 34

ccatgttgct gctcagaact gctgggtgaa gaagggaggt gctttcactg gtgaagtcag 60
 tgctgagatg ctggtcaacc ttggtgttcc ctgggtcatt cttggacact ctgaaaggag 120
 agctctgctg ggagaatcaa atgaatttgt tggagacaag gttgcgtatg ccctgtctca 180
 gggactaaag gtcattgcat gtgttgggtga gacccttgag cagagggagg ctgggtctac 240
 catggatggt gttg 254

<210> 35
 <211> 341
 <212> nucleic acid
 <213> Zea mays

<400> 35

cgccgtccga agctccgcac cccaatctaa tcgacacctc accgagatgg gccgcaagtt 60
 cttcgtcggg ggcaactgga aatgcaatgg aaccacagat caggctcgaga agattgtcaa 120
 aaccctgaat gaaggacagg ttcccccttc agatgttgtg gaggtcgttg tcagccctcc 180
 ttatgtcttc cttcctgtgg tcaagagcca gctgcgcca gagttccatg ttgctgctca 240
 gaactgctgg gtgaagaagg gaggtgcttt cactgggtgaa gtcagtgtg agatgtctgt 300
 caaccttggg gttccctggg tcatcttgga cactctgaaa g 341

<210> 36
 <211> 251
 <212> nucleic acid
 <213> Zea mays

<400> 36

ttcggcacga gaaagagcta gcagcacagc ctgatgtcga tggttttctt gtcggtggag 60
 cttctttgaa gcttgagttc atcgacatca tcaacgcggc caccgtgaag tccgcttaag 120
 atgctacgt gaagacgaac atactttttt tttgctcaac tgtgctatgt aagctagtag 180
 cttttgcgca ggagcagaga ctgttttggc tgcccccaac ttctagcttg agcttgctaa 240
 taatgtttac c 251

<210> 37
 <211> 246
 <212> nucleic acid
 <213> Zea mays

 <400> 37

 tggctattgg aactggtaaa gttgccaccc cagctcaggc tcaggaagtg cagcctccc 60
 tgagggattg gctaaagacc aatgccagcc ctgaggttgc tgaatctact aggatcatct 120
 acggaggctc tgtaactgct gcgaactgca aagagctagc agcacagcct gatgtcgatg 180
 gttttcttgt cgggtggagct tctttgaagc ctgagttcat cgacatcatc aacgcggcca 240
 ccgtga 246

<210> 38
 <211> 270
 <212> nucleic acid
 <213> Zea mays

 <400> 38

 ggtgaagtca gtgctgagat gctcgtcaac cttgggtgtc cctgggtcat tcttggacac 60
 tctgaaagga gagctctgct gggagaatca aatgaatttg ttggagacaa ggttgcgtat 120
 gccctgtctc agggactaaa ggtcattgca tgtgttggtg agacccttga gcagagggag 180
 gctgggtcta ccatggatgt tgttgctgca caaacaaaag caattgctga gaagatcagg 240
 actggagcac gtattgttgc ctatgaacca 270

<210> 39
 <211> 277
 <212> nucleic acid
 <213> Zea mays

 <400> 39

 cgcagatcag gttgagaaga ttgtcaaac cctgaatgaa ggaaatgttc cctcttcaga 60
 tgttgttgag gttgttgtca gtccctcctta tgtgttcctc ccggtgggtca agagccagct 120
 gcgtcaagag ttccaagttg ctgctcagaa ctgctgggtg aagaagggag gtgcattcac 180
 tggtgaaatt agtgctgaga tgctcgtcaa ccttggcggt ccctgggtca ttcttggaca 240
 ctctgaaagg agagctctgc tgggagaatc aaatgag 277

<210> 40
 <211> 261
 <212> nucleic acid
 <213> Zea mays

 <400> 40

 cccacgcgtc cggaactgct ggggtgaagaa gggaggtgct ttcactggtg aagtcagtgc 60
 tgagatgctc gtcaaccttg gtgttcacctg ggtcattctt ggacactctg aaaggagagc 120
 tctgctggga gaatcaaatg aatttggttg agacaagggt gcgtatgccc tgtctcaggg 180
 actaaaggctc attgcatgtg ttggtgagac ccttgagcag agggaggctg ggtctaccat 240
 ggatgttggt gctgcacaaa c 261

<210> 41
 <211> 276
 <212> nucleic acid
 <213> Zea mays

 <400> 41

 tgaagggagg tgcattcacc ggtgaaatta gtgctgagat gctcgtcaac cttggcggtc 60
 cctgggtcat tcttgacac tctgaaagga gagctctgct gggagaatca aatgagtttg 120
 ttggagacaa gggtgctttt gctctgtctc agggactaaa ggtcattgca tgtgttggtg 180
 agacccttga ggagagggag gctgggtcaa ccatggatgt tgttgctgca caaacaaaag 240
 caattgctga gaagatcaag gactggagca acgttg 276

<210> 42
 <211> 326
 <212> nucleic acid
 <213> Zea mays

 <400> 42

 ccaatctaga agcacacctc tccctctctc tctcttcgcc gtccgaagct ccgcacccca 60
 atctaatacga cacctcacccg agatgggccg caagtctgct gtcggtggca actggaaatg 120
 caatggaacc acagatcagg tcgagaagat tgtcaaaacc ctgaatgaag gacaggttcc 180
 cccttcaatg ttgtggaggt cgttgctcagc cctccttatg tcttccttcc tgtggtcaag 240
 agccagctgc gccaaagagt ccatgttgct gctcagaact gctgggtgaa gaagggatgt 300
 gctttcactg gtgaagtcac gctgag 326

<210> 43
 <211> 244
 <212> nucleic acid
 <213> Zea mays

 <400> 43

 aactgcaaag agctagcagc acagcctgat gtcgatgggt ttccctgtcgg tggagcttct 60
 ttgaagcctg agttcatoga catcatcaac gcggccaccg tgaagtccgc ttaagatgct 120
 acgctgaaga cgaacatact ttttttttgc tcaactgtgc tatgtaagct agtagctttt 180
 gcgcaggagc agagactggt ttgcctgccc ccaacttcta gcttgagctt gctaataatg 240
 ttta 244

<210> 44
 <211> 258
 <212> nucleic acid
 <213> Zea mays

 <400> 44

 cccacgcgtc cgatgcaatg gaaccacaga tcagggtcgag aagattgtca aaaccctgaa 60
 tgaaggacag gttccccctt cagatgttgt cgagggtcgtt gtcagccctc cttatgtctt 120
 ccttcctgtg gtcaagagcc agctgcgcca agagttccat gttgctgctc agaactgctg 180
 ggtgaagaag ggaggtgctt tcaactggtga agtcagtgtc gagatgctcg tcaaccttgg 240
 tgttccctgg gtcattct 258

<210> 45
 <211> 265
 <212> nucleic acid
 <213> Zea mays

 <400> 45

 gaagctccgc acccaatcta atcgacacct caccgagatg ggccgcaagt tcttcgtcgg 60
 tggcaactgg aaatgcaatg gaaccacaga tcagggtcgag aagattgtca aaaccctgaa 120
 tgaaggacag gttccccctt acaatgttgt tgagggtcgtt gtcagccctc cttatgtctt 180
 ccttcctgtg gtcaagagcc agctgcgcca agagttccat gttgctgctc agaactgctg 240
 ggtgaagaag ggaggtgctt tcaact 265

tggtcaagag ccagctgccc caagagttcc aagtcgctgc tcagaactgc tgggtgaaga 240
 agggaggtgc attcactggt gaaaccagtgc ctgagatgct cgtcaacctt ggcgtctccc 300
 tgggtcactc ttggaca 317

<210> 49
 <211> 263
 <212> nucleic acid
 <213> Zea mays

<400> 49

ggaaatgcaa tggaaaccgca gatcagggttg agaagattgt caaaaccctg aatgaaggaa 60
 atgttccctc ttcagatggt gttgaggttg ttgtcagtc tccttatgtg ttcctcccg 120
 tggtcaagag ccagctgccc caagagttcc aagttgctgc tcagaactgc tgggtgaaga 180
 agggaggtgc attcactggt gaaattagtgc ctgagatgct cgtcaacctt ggcgttccct 240
 gggtcattct tggacactct gaa 263

<210> 50
 <211> 227
 <212> nucleic acid
 <213> Zea mays

<400> 50

ctttgaagcc tgagttcatc gacatcatca acgcgccac cgtgaagtcc gcttaagatg 60
 ctacgctgaa gacgaacata cttttttttt gctcaactgt gctatgtaag ctagtagctt 120
 ttgcgcagga gcagagactg ttttgctgc ccccaacttc tagcttgagc ttgctaataa 180
 tgtttacctc tggacgtatc aataatggtg cttatgtatc ccctttt 227

<210> 51
 <211> 300
 <212> nucleic acid
 <213> Zea mays

<400> 51

ccagtctggg ctattggaac tggcaaagtc gccacccag ctcaggctca ggaagtgcac 60
 gcctccctga gggattgggt aaagatcaat gtcagccctg aggtctctga atctacaagg 120
 atcatctatg gaggttcagt aactgctgcg aactgcaaag agctggcagc acagcctgat 180

gtcgatgggtt tccttgtggg cgggtgcttct ttgaagcccg agttcatcga catcatcaac 240
gccgccaccg tgtgaagtcc gcttaagatg ttccaaccct tcaccctggt gcggtgatgt 300

<210> 52
<211> 348
<212> nucleic acid
<213> Zea mays

<400> 52

ccgtactcaa tctaatacgac acccggccga gattggacgc aatttcttcg ttggtggcaa 60
ctggaaatgc aatggaaccg cagatcaggt tgagtagatt gtcaagacgc tgaatgaagg 120
aaatgttccc tcttcagatg ttgttgaggt tgtggtcagt cctccttatg tgttcctccc 180
gggtggtcaag agccagctgc tccaagagtt ctaagttgct gtcagaact gctgggtgaa 240
gaagggaggt gcattcactg gtgaaattag tgctgagatg ctggtcaacc ttggcggtcc 300
ctgggtcatt cttggacact ctgaaaggag agctctgtct gggagaat 348

<210> 53
<211> 264
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (48), (61), (222), (224), (233), (236), (241), (255)
<223> unsure at all n locations

<400> 53

gtgagaccct tgagcagagg gaggtgggt ctaccatgga tgttgtnct gcacaaacaa 60
nagcaattgc tgagaagatc aaggactgga gcaacgtagt tgttgctat gaaccagttt 120
gggctattgg aactggtaaa gttgccaccc cagctcaggc tcaggaagtg cacgcctccc 180
tgagggattg gctaaagacc aatgccagcc ctgggggttg tnanctata ggntcntcta 240
nggggcttta aaaantgctg ggaa 264

<210> 54
<211> 225
<212> nucleic acid
<213> Zea mays

<400> 54
 gttcttcgtc ggtggcaact ggaaatgcaa tggaaccaca gatcaggctcg agaagattgt 60
 caaaaccctg aatgaaggac aggttcccc ttcagatggt gtcgaggctcg ttgtcagccc 120
 tccttatgtc ttccttctcg tggtaagag ccagctgcgc caagagttcc atgttgctgc 180
 tcagaactgc tgggtgaaga agggaggtgc tttcactggt gaagt 225

<210> 55
 <211> 278
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (88)
 <223>

<400> 55
 cttggcggttc cctgggtcat tcttggacac tctgcaagga gagctctgct gggagtttcc 60
 tgtgagtttg ttggagacaa gggttgtnnt gctctgtctc agggactaaa ggtcattgca 120
 tgtgttggtg agacccttga gtttagggag gctgggtcaa ccatggatgt tgttgctgca 180
 caaacaaaag caattgctga gaagatcaag gactggagca acgttggtct tgcctatgaa 240
 ccagtctggg ctattggaac tggcaaagtc gccaccca 278

<210> 56
 <211> 317
 <212> nucleic acid
 <213> Zea mays

<400> 56
 gcccctcttc ctctcccca tccgtacca atctaataga caccggccg agatgggccc 60
 caagttcttc gttggtggca actggaaatg caatggaacc gcagatcagg ttgagaagat 120
 tgtcaaaacc ctgaatgaag gaaatgttcc ctcttcagat gttgttgagg tcgttgctcag 180
 tctctcttat gtgttctctc cgggtggtaa gagccagctg cgccaagagt tccaagttgc 240
 tgctcagaac tgctgggtga agaagggagg tgcattcact ggtgaaatta gtgctgaaat 300
 gctcgtcaac cttggcg 317

<210> 57
 <211> 291
 <212> nucleic acid
 <213> Zea mays

<400> 57

ccgtacccaa tctaatacgac acccggccga gatgggccgc aagttcttcg ttggtggcaa 60
 ctggaaatgc aatggaaccg cagatcaggt tgagaagatt gtcaaaaccc tgaatgaagg 120
 aaatgttccc tcttcagatg ttgttgaggt cgttgtcagt cctccttatg tgttcctccc 180
 ggtggtcaag agccagctgc gccaaagagtt ccaagttgct gtcagaact gctgggtgaa 240
 gaagggaggt gcattcactg gtgaaattag tgctgaaatg ctgctcaacc t 291

<210> 58
 <211> 244
 <212> nucleic acid
 <213> Zea mays

<400> 58

acggaggctc tgtaactgcc gcgaactgca aagagctagc agcacagcct gatgtcgatg 60
 ggttttcttgt cgggtggagct tctttgaagc ctgagttcat cgacatcatc aacgcggcca 120
 ccgtgaagtc cgcttaagat ggtacgcgtg agacgaacat actttttttt tgctcaactg 180
 tgctatgtaa gctagtagct tttggcgagc gacagagact ttgtttacct cccccaactt 240
 ttag 244

<210> 59
 <211> 254
 <212> nucleic acid
 <213> Zea mays

<400> 59

ccatccgtac ccaatctaata cgacacccgg ccgagatggg ccgcaagtgc ttggttggtg 60
 gcaactggaa atgcaatgga accacagatc aggttgagaa gattgtcaaa accctgaatg 120
 aaggaaatgt tcctcttcag atgttggtga ggtcgttgct agtcctcctt atgtgttcct 180
 cccggtgggc aagagccagc tgcgccaaga gttccaagtt gctgctcaga actgctgggt 240
 gaagaaggga ggtg 254

<210> 60
 <211> 222
 <212> nucleic acid
 <213> Zea mays

<400> 60

tgctcgtaaa ccttgggtgtt ccctgggtca ttcttgga ca ctctgaaagg agagctctgc 60
 tgggagaatc aaatgaattt gttggagaca aggttgcgta tgccctgtct cagggactaa 120
 aggtcattgc atgtgttggg gagacccttg agcagaggga ggctgggtct accatggatg 180
 ttgttgctgc acaaacaaaa gcaattgctg agaagatcaa gg 222

<210> 61
 <211> 263
 <212> nucleic acid
 <213> Zea mays

<400> 61

atcgacacct caccgagatg ggccgcaagt tcttcgctcg tggcaactgg aaatgcaatg 60
 gaaccacaga tcaggctcgag aagattgtca aaaccctgaa tgaaggacag gttccccctt 120
 cagatgttgt ggaggctggt gtcagccctc cttatgtctt ccttcctgtg gtcaagagcc 180
 agctgcgcca agagttccat gttgctgctc agaactgctg ggtgaagaag ggagggtgctt 240
 tcaactggtga agtcagtgtc gag 263

<210> 62
 <211> 292
 <212> nucleic acid
 <213> Zea mays

<400> 62

gaagctccgc acccaatcta atcgacacct caccgagatg ggccgcaagt tcttcgctcg 60
 tggcaactgg aaatgcaatg gaaccacaga tcaggctcgag aagattgtca aaaccctgaa 120
 tgaaggacag gttccccctt cagatgttgt tgaggctggt gtcagccctc ttatgtcttc 180
 cttcctgtgg tcaagagcca gctgcgcca gagttccatg ttgctgctca gaactgctgg 240
 gtgaagaagg gaggtgcttt cactggtgaa gtcagtgtc agatgctcgt ca 292

<210> 63
 <211> 312

<212> nucleic acid
<213> Zea mays

<400> 63

ctctccctct ctctctcttc gccgtccgaa gtcgccacc ccaatcta atcgacacctca 60
ccgagatggg ccgcaagttc ttcgtcgggt gcaactggaa atgcaatgga accacagatc 120
aggtcgagaa gattgtcaaa accctgaatg aaggacaggt tcccccttca gatgttgttg 180
aggtcgttgt cagccctcct tatgtcttcc ttctgtggt caagagccag ctgcgccaag 240
agttccatgt tgctgctcag aactgctggg tgaagaaggg aggtgctttc actggtgaag 300
tcagtgtga ga 312

<210> 64
<211> 259
<212> nucleic acid
<213> Zea mays

<400> 64

atccaatcta gaagcacacc acaccctctc tctctcttcg ccgtccgaag caccgcacac 60
caatctaatac gacacatcac cgagatgggc cgcaagttca tcgtcggtag caacaggaaa 120
tgcaatggaa ccacagatca ggtcgagaag attgtcaaaa cactgaatga aggacaggtt 180
cccccatcag atgttgtgga ggacgttggt agccacactt atgtcttctt tcctgtgggtc 240
aagagccagc agcgccaag 259

<210> 65
<211> 295
<212> nucleic acid
<213> Zea mays

<400> 65

aagcgccct cctcctctcc cccatccgta cccaatctaa tcgacaccgc gccgagatgg 60
gccgcaagtt ctctgttggt ggcaactgga aatgcaatgg aaccgcagat caggttgaga 120
agattgtcaa aaccctgaat gaaggaaatg ttccctcttc agatgttggt gaggttggtg 180
tcagtctctc ttatgtgttc ctcccgggtg tcaagagcca gctgcgcca gagttccaag 240
ttgtgtctca gaactgctgg gtgaagaagg gaggtgcatt cactggtgaa attag 295

<210> 66
 <211> 320
 <212> nucleic acid
 <213> Zea mays

 <400> 66

 aaatccaatc tagaagcacc cctctccctc tctctctctt cgccgtccga agctccgcac 60
 cccaatctaa tcgacacctc accgagatgg gccgcaagtt cttcgtcggt ggcaactgga 120
 aatgcaatgg aaccacagat caggctcgaga agattgtcaa aaccctgaat gaaggacagg 180
 ttcccccttc agatgtttgtg gaggtcggtg tcagccctcc ttatgtcttc cttcctgtgg 240
 tcaagagcca gctgcgcca gagttccatg ttgctgctca gaactgctgg gtgaagaagg 300
 gaggtgcttt cactggtgaa 320

<210> 67
 <211> 207
 <212> nucleic acid
 <213> Zea mays

 <400> 67

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 aagttgccac ccagctcag gctcaggaag tgcacgcctc cctgagggat tggctaaaga 120
 ccaatgccag cctgaggtt gctgaatcta ctaggatcat ctacggaggc tctgtaactg 180
 ctgcgaactg caaagagcta gcagcac 207

<210> 68
 <211> 265
 <212> nucleic acid
 <213> Zea mays

 <400> 68

 aatcgacacc cggccgagat gggcgcaagt tcttcgttgg tggcaactgg aaatgcaatg 60
 gaaccgcaga tcaggttgag aagattgtca aaaccctgaa tgaaggaaat gttccctctt 120
 cagatgttgt tgaggttggt gtcagtcctc cttatgtttt cctcccgggtg gtcaagagcc 180
 agctgcgcca agagttccaa gttgctgctc agaactgctg ggtgaagaag ggaggtgcat 240
 tcaactggtga aattagtgt gagat 265

663430-0372260

<210> 69
 <211> 319
 <212> nucleic acid
 <213> Zea mays

 <400> 69

 cggacgcgtg ggtagaagca cccctctccc tctctctctc ttgcgcgtcc gaagctccgc 60
 accccaatat aatcgacacc tcaccgagat gggccgcaag ttactcgtcg gtggcaactg 120
 gaaatgcaat ggaaccacag atcagggtcg gaagattgtc aaaaccctga atgaaggaca 180
 ggttccccct tcagatgttg tggagggtcg tgtcagccct ccttatgtct tccttcctgt 240
 ggtcaagagc cagctgcgcc aagagttcca tgttgctgct cagaactgct gggggaagaa 300
 gggagggtgt ttcactggt 319

<210> 70
 <211> 316
 <212> nucleic acid
 <213> Zea mays

 <400> 70

 atccaatcta gaagctcccc tctccctccc tccctctctc tctctctctt cgccgtccga 60
 agctccgcac ccaatctaata cgacacctca ccgagatggg ccgcaagtcc ttcgtcggtg 120
 gcaactggaa atgcaatgga accacagatc aggtcgagaa gattgtcaaa accctgaatg 180
 aaggacaggt tcccccttca gatgttgctg aggtcgttgt cagccctcct tatgtcttcc 240
 ttctgtggt caagagccag ctgcgccaaag agttccatgt tgetgctcag aactgctggg 300
 tgaagaaggg aggtgc 316

<210> 71
 <211> 276
 <212> nucleic acid
 <213> Zea mays

 <400> 71

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 caagttcttc gtcggtggca actggaaatg caatggaacc acagatcagg tcgagaagat 120
 tgtcaaaacc ctgaatgaag gacagggtcc cccttcagat gttgtcgagg tcgttgctcag 180
 cctccttat gtcttccttc ctgtgggtcaa gagccagctg cgccaagagt tccatgttgc 240

tgctcagaac tgctgggtga agaagggagg tgcttt

276

<210> 72
 <211> 204
 <212> nucleic acid
 <213> Zea mays

<400> 72

gaagatcaag gactggagca acgtattgtt gcctatgaac cagtttgggc tattggaact 60

ggtaaagttg ccaccccagc tcaggctcag gaagtgcacg cctccctgag ggattggcta 120

aagaccaatg ccagccctga ggttgctgaa tctactagga tcatctacgg aggctctgta 180

actgctgcga actgcaaaga gcta 204

<210> 73
 <211> 342
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (91)
 <223>

<400> 73

ctagaagccc cctctccctc cctccctctc tctctctctc ttgcgcgtcc gaagctccgc 60

acccaatcta atccacacct cagccagatg ngccgcaagt tcttcgtcgg tggcaactgg 120

aaatgcaatg gaaccacaga tcaggctcag aagattgtca gaaccctgaa tgaaggacag 180

gttccccctt cagatgttgt cgaggctcgtt gtcagccctc cttatgtctt ccttcctgtg 240

gtcaagagcc agctgcgcca agagttccat gttgctgctc agaactgctg ggtgaagaat 300

ggaggtgctt tcaactggtga agcagtgctg agatgctcgt ca 342

<210> 74
 <211> 313
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (308)
 <223>

<400> 74
aatctagaag ctccctctct cctccctccc tctctctctc tctcttcgcc gtccgaagct 60
ccgcacccaa tctaatacgac acctcaccga gatggggccgc aagttcttcg tcggtggcaa 120
ctggaaatgc aatggaacca cagatcaggt cgagaagatt gtcaaaaccc tgaatgaagg 180
acaggttccc ccttcagatg ttgtcgaggt cgttgtcagc cctccttatg tcttccttcc 240
tgtgggtcaag agccagctgc gccaaagagt ccatgttgct gctcagaact gctgggtgaa 300
gaagggangt gct 313

<210> 75
<211> 277
<212> nucleic acid
<213> Zea mays

<400> 75
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agatggggccg caagttcttc gttgggtggca actggaaatg caatggaacc gcagatcagg 120
ttgagaagat tgtcaaaacc ctgaatgaag gaaatgttcc ctcttcagat gttgttgagg 180
ttgtttgtcag tcctccttat gtgttctctc cgggtggtcaa gagccagctg cgccaagagt 240
tccaagttgc tgctcagaac tgctgggtga agaaggg 277

<210> 76
<211> 282
<212> nucleic acid
<213> Zea mays

<400> 76
atttagaagc gcccctctct ctctccccc tccgtaccca atctaatacg caccgggccg 60
agatggggccg caagttcttc gttgggtggca actggaaatg caatggaacc gcagatcagg 120
ttgagaagat tgtcaaaacc ctgattgaag gaaatgttcc ctctacagat gttgttgagg 180
tcgtttgtcag tcctccttat gtgttctctc cgggtggtcaa gagccagctg cgccaagagt 240
tccaagttgc tgctcagaac tgctgggtga agaagggagg tg 282

<210> 77
<211> 313

<212> nucleic acid
<213> Zea mays

<400> 77

acaatttaga agcgaccctc ctccctctccc ccatccgtac ccaatctaata cgacacccgg 60
ccgagatggg ccgcaagttc ttcggttggtg gcaactggaa atgcaatgga accgcagatc 120
aggttgagaa gattgtcaaa accctgaatg aaggaaatgt tccctcttca gatgttggtg 180
aggttgttgt cagtcctcct tatgtgttcc tcccgggtgg caagagccag ctgcgccaag 240
agttccaagt tgctgctcag aactgctggg tgaagaaggg aggtgcatta cactggtgaa 300
attagtgtg aga 313

<210> 78
<211> 307
<212> nucleic acid
<213> Zea mays

<400> 78

ccaatctaga agtccccctc ttcgtccctc cctctctctc tctctcttcg ccgtccgaag 60
ctccgcaccc aatctaatac acacctcacc gagatggggc gcaagttctt cgtcggtggc 120
aactggaaat gcaatggaac cacagatcag gtcgagaaga ttgtcaaaac cctgaatgaa 180
ggacaggttc ccccttcaga tgttgctgag gtcgttgtca gccctcctta tgtcttcctt 240
cctgtgggtc agagccagct gcgccaagag ttccatgttg ctgctcagaa ctgctgggtg 300
aagaagg 307

<210> 79
<211> 299
<212> nucleic acid
<213> Zea mays

<400> 79

aatccaatct agaagcacc ctctccctct ctctctcttc gccgtccgaa gtcgccacc 60
ccaatctaata cgacacctca ccgagatggg ccgcaagttc ttcgtcggtg gcaactggaa 120
atgcaatgga accacagatc aggtcgagaa gattgtcaaa accctgaatg aaggacaggt 180
tcccccttca gatgttggtg aggtcggtgt cagccctcct tatgtcttcc ttcctgtggg 240
caagagccag ctgcgccaag agttccatgt tgctgctcag aactgctggg tgaagaagg 299

<210> 83
 <211> 286
 <212> nucleic acid
 <213> Zea mays

<400> 83

ccgtacccaa tctaatacgac acccggccga gataagccgc aagttcttcg ttggtggcaa 60
 ctggaaatgc aatggaaccg cagatcaggt tgagaagatt gtcaaaaccc tgaatgaagg 120
 aaatgttccc tcttcagatg ttgttgaggt cgttggtcagt cctccttatg tgttcctccc 180
 ggtggtcaag agccagctgc gccaaagagtt ccaagttgct gctcagaact gctgggtgaa 240
 gaagggaggt gcatcactgg tgaaattatg ctgaatgctc gtcaac 286

<210> 84
 <211> 292
 <212> nucleic acid
 <213> Zea mays

<400> 84

ctatctagaa gctccctctc cctccctcc ctctctctct ctctcttcgc cgtccgaagc 60
 tccgcaccca atctaatacga cacctcaccg agatgggccg caagttcttc gtcggtggca 120
 actggaaatg caatggaacc acagatcagg tcgagaagat tgtcaaaacc ctgaatgaag 180
 gacaggttcc ccttcagat gttgtcgagg tcgttggtcag cctccttat gtcttccttc 240
 ctgtggtcaa gagccagctg cgccaagagt tccatgttgc tgctcagaac tg 292

<210> 85
 <211> 277
 <212> nucleic acid
 <213> Zea mays

<400> 85

aatctagaag caccctctc cctctctctc tcttcgccgt ccgaagctcc gcacccaat 60
 ctaatacgaca cctcaccgag atgggccgca agttcttcgt cgggtggcaac tggaaatgca 120
 atggaaccac agatcaggtc gagaagattg tcaaaaccct gaatgaagga caggttcccc 180
 cttcagatgt tgtggaggtc gttgtcagcc ctccttatgt cttccttcct gtggtcaaga 240
 gccagctgcg ccaagagttc catgttgctg ctcagaa 277

<210> 86
 <211> 298
 <212> nucleic acid
 <213> Zea mays

<400> 86

gtccccctct ccccccctcc ctctctctct ctctcttctc cgtccgaagc tccgcaccca 60
 atctaatacga cacctcacccg agatggggccg caagttcttc gtcgggtggca actggaaatg 120
 caatggaacc acagatcagg tcgagaagat tgtcaaaaacc ctgaatgaag gacagggttcc 180
 ccccttcagat gttgttgagg tcgtttgtcag cccctccttat gtcttccttc ctgtgggtcaa 240
 gagccagctg cgccaagagt tccatgttgc tgctcagaac tgctgggtga agaagggga 298

<210> 87
 <211> 272
 <212> nucleic acid
 <213> Zea mays

<400> 87

atttagaagc gcccctcctc ctctccccc cccgtaccca atctaatacga caccgggccg 60
 agatggggccg caagttcttc gttgggtggca actggaaatg caatggaacc gcagatcagg 120
 ttgagaagat tgtcaaaaacc ctgaatgaag gaaatgttcc ctcttcagat gttgttgagg 180
 ttgtttgtcag tccctccttat gtgttcctcc cgggtgggtcaa gagccagctg cgccaagagt 240
 tccaagttgc tgctcagaac tgctgggtga ag 272

<210> 88
 <211> 301
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (137)
 <223>

<400> 88

cacacgcgtc cgaactagaa gcacccctct acctccctcc ctctctctct ctctcttctc 60
 agtccgaagc tccgcaccca atctaatacga cacctcacccg agatggggccg caagtacttc 120

CCGTTGAGG

gtcgggtggca actggnatg caatggaacc acagatcagg tcgagaagat tgtcaaaacc 180
 ctgaatgaag gacagggtcc ccccttcagat gttgtcgagg tcgttgtcag cactccttat 240
 gtcttccttc ctgtgggtcaa gagccagctg cgccaagagt tccatgttgc tgctcagaac 300
 t 301

<210> 89
 <211> 307
 <212> nucleic acid
 <213> Zea mays

<400> 89

cggaacgggtgg gcagcgaaat ccaatctaga agctcccttc tccctccctc cctctctctc 60
 tctctcttctg ccgtccgaag ctccgcaccc aatctaactg acacctcacc gagatggggcc 120
 gcaagttctt cgtcgggtggc aactggaaat gcaatggaac cacagatcag gtcgagaaga 180
 ttgtcaaaac cctgaatgaa ggacagggtc ccccttcaga tgttgtcgag gtcgttgtca 240
 gccctcctta tgtcttcctt cctgtgggtca agagccagct gcgccaagag ttccatgttg 300
 ctgctca 307

<210> 90
 <211> 310
 <212> nucleic acid
 <213> Zea mays

<400> 90

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 gcaactggaa atgcaatgga accacagatc aggtcgagaa gattgtcaaa accctgaatg 180
 aaggacaggt tcccccttca gatgttgtcg aggtcgttgt cagccctcct tatgtcttcc 240
 ttctgtgggt caagagccag ctgcgccaag agttccatgt tgctgctcag aactgctggg 300
 tgaagaaggg 310

<210> 91
 <211> 258
 <212> nucleic acid
 <213> Zea mays

<400> 91
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 cgagatgggc cgcaagttct tcgttgggtg caactggaaa tgcaatggaa ccgcagatca 120
 gggtgagaag attgtcaaaa ccctgaatga aggaaatggt ccctcttcag atgttgttga 180
 cgttgttgtc agtcctcctt atgtgttcct cccggtgggc aagagccagc tgcgccaaga 240
 gttccaagtt gctgctca 258

<210> 92
 <211> 294
 <212> nucleic acid
 <213> Zea mays

<400> 92
 atctagaagc acccctctcc ctctctctct ctccgcccgc cgaagctccg caccccaate 60
 taatcgacac ctcaccgaga tgggcccga gttcttcgtc ggtggcaact ggaaatgcaa 120
 tggaaccaca gatcaggctg agaagattgt caaaaccctg aatgaaggac aggttcccc 180
 ttcagatggt gtggaggctg ttgtcagccc tccttatgtc ttccttcctg tggtaagag 240
 ccagctgcgc caagagttcc atgttgctgc tcagaactgc tgggtgaaga aggg 294

<210> 93
 <211> 271
 <212> nucleic acid
 <213> Zea mays

<400> 93
 ctcccctctc cctcccctcc tctctctctc tctcttcgcc gaccgaagct ccgcacccaa 60
 tctaategac acctcaccga gatgggcccgc aagttcttcg tcggtggcaa ctggaaatgc 120
 aatggaacca cagatcaggt cgagaagatt gtcaaaaccc tgaatgaagg acaggttccc 180
 ccttcagatg ttgtcgaggt cgttgtcagc cctccttatg tcttccttcc tgtggtcaag 240
 agccagctgc gccaaagatt ccatgttgc g 271

<210> 94
 <211> 274
 <212> nucleic acid
 <213> Zea mays

<400> 94
 acggccgaga tgggcccga gttctgcgtt ggtggcaact ggagatgcaa tggaaccgca 60
 gatcagggttg agaagattgt caaaaccctg aatgaaggaa atgttcctc ttcagatgtt 120
 gttgagggttg ttgtcagtcc tccttatgtg ttcctcccgg tggtaagag ccagctgcgc 180
 caagagttcc aagttgctgc tcagaactgc tgggtgaaga agggatgtgc attcactggt 240
 gaaattagtg ctgagatgct cgtcaacctt ggcg 274

<210> 95
 <211> 306
 <212> nucleic acid
 <213> Zea mays

<400> 95
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 ctccgcaccc aatctaactg acacctcacc gagatgggcc gcaagttctt cgtcgggtggc 120
 aactggaaat gcaatggaac cacagatcag gtcgagaaga ttgtcaaaac cctgaatgaa 180
 ggacagggttc ccccttcaga tgttgctgag gtcgttgta gccctcctta tgtcttcctt 240
 cctgtgggtca agagccagct gcgccaagag ttccatgttg ctgctcagaa ctgctgggtg 300
 aagaag 306

<210> 96
 <211> 280
 <212> nucleic acid
 <213> Zea mays

<400> 96
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 ccgagatggg ccgcaagttc ttcgtcgggt gcaactggaa atgcaatgga accacagatc 120
 aggtcgagaa gattgtcaaa accctgaatg aaggacaggt tcccccttca gatgttggtg 180
 aggtcgttgt cagccctcct tatgtcttcc ttcctgtggt caagagccag ctgcgccaag 240
 agttccatgt tgctgctcag aactgctggg tgaagaaggg 280

<210> 97
 <211> 280
 <212> nucleic acid

<213> Zea mays

<400> 97

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atctaatacga cacctcgccg agatgggccc caagttcttc gtccgtggca actggaaatg 120
caatggaacc acagatcagg tcgagaagat tgtcaaaacc ctgaatgaag gacaggttcc 180
cccttcagat gttgtggagg tcgttgtcag cctccttat gtcttccttc ctgtggtcaa 240
gagccagctg cgccaagagt tccatgttgc ggctcagaac 280

<210> 98

<211> 276

<212> nucleic acid

<213> Zea mays

<400> 98

atccaatcta gaagcgcccc tctccctctc tctctctctc ttccgcgtcc gaagctccgc 60
acccaatatc aatcgacacc tcgccgagat gggccgcaag ttcttcgtcg gtggcaactg 120
gaaatgcaat ggaaccacag atcaggtcga gaagattgtc aaaaccctga atgaaggaca 180
ggttccccct tcagatgttg tggaggctgt tgtcagccct ccttatgtct tccttcctgt 240
ggtcaagagc cagctgcgcc aagagttcca tgttgc 276

<210> 99

<211> 300

<212> nucleic acid

<213> Zea mays

<220>

<221> unsure

<222> (174)

<223>

<400> 99

gcgaaatcca atctagaagc tccctctctc cctccctcct ctctctctct ctcttcgccg 60
tccgaagctc ccgcaccaat ctaatcgaca cctcaccgag atgggcccga agttcttcgt 120
cggtggcaac tggaaatgca atggaaccac agatcaggtc gagaagattg tcanaaccct 180
gaatgaagga caggttcccc cttcagatgt tgtcagagtc gttgtcagcc ctccttatgt 240
cttccttctc gtggtcaaga gccagctgcg ccaagagttc catgttgctg ctcagaactg 300

<210> 100
 <211> 316
 <212> nucleic acid
 <213> Zea mays

<400> 100

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 tgctgcgaac tgcaaagagc tggcagcaca gcctgatgtc gatggtttcc ttgtgggcgg 120
 tgcttctttg aagcccgagt tcatcgacat catcaacgcc gccgccgtgt gaagtccgct 180
 gaagatgttc caacccttca ccctgttgcg gtgatgtgct gaagacagat cagactattt 240
 ttttgtttaa ccgtgcagtg ctatgtaagc tactaacttt gcgctgggtgc ggatgctgat 300
 ttccctcccc ctagct 316

<210> 101
 <211> 325
 <212> nucleic acid
 <213> Zea mays

<400> 101

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 gtgcttcttt gaagcccgag ttcacgaca tcatcaacgc cgccgccgtg tgaaatccgc 180
 ttaagatgtt ccaacccttc accctgttgc ggtgatgtgc tgaagacaga tcagactatt 240
 tttttgttta accgtgccgt gctatgtaag ctactaactt tgcgctgggtg cggatgctga 300
 ttccctccc ccctagcttt ttgtg 325

<210> 102
 <211> 273
 <212> nucleic acid
 <213> Zea mays

<400> 102

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 tctaactgac acctcaccga gatggggccgc aagttcttcg tcggtggcaa ctggaaatgc 120
 aatggaacca cagatcaggt cgagaagatt gtcaaaaacc tgaatgaagg acaggttccc 180

ccttcagatg ttgtggaggt cgttgtcagc cctccttatg tcttccttcc tgtgggtcaag 240
agccagctgc gcccaagagtt ccatgttgct gcc 273

<210> 103
<211> 281
<212> nucleic acid
<213> Zea mays

<400> 103

gcgatctaga agcacccttc tccctctctc tctcttcgcc gtccgaagct ccgcacccca 60
atctaatacga cacctcaccg agatggggccg caagttcttc gtcgggtggca actggaaatg 120
caatggaacc acagatcagg tcgagaagat tgtcaaaaacc ctgaatgaag gacagggttcc 180
cccttcagat gttgtggagg tcgttgtcag cctccttatg gtcttccttc ctgtgggtcaa 240
gagccagctg cgccaagagt tccatgttgct tgctcagaac t 281

<210> 104
<211> 297
<212> nucleic acid
<213> Zea mays

<400> 104

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ctccgcaccc aatctaatacga acacctcacc gagatggggcc gcaagttctt cgtcgggtggc 120
aactggaaat gcaatggaac cacagatcag gtcgagaaga ttgcctaaac cctgaatgaa 180
ggacagggttc ccccttcaga tggtgttgag gtcgttgtca gccctcctta tgtcttcctt 240
cctgtgggtca agagccagct gcgccaagag ttccatgttc tgctcagaac tgctggg 297

<210> 105
<211> 278
<212> nucleic acid
<213> Zea mays

<400> 105

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agatggggccg caagttcttc gttgggtggca actggaaatg caatggaacc gcagatcagg 120
ttgagaagat tgtcaaaaacc ctgaatgaag gaaatgttcc ctcttcagat gttgttgagg 180

ttgttgtcag tcttccttat gtgttcctcc cgggtgtcaa gagctagctg cgccaagagt 240
tccagttgct gctcagaact gctgggtgag aagggagt 278

<210> 106
<211> 216
<212> nucleic acid
<213> Zea mays

<400> 106

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caccccaatc taatcgacac ctcaccgaga tgggccgcaa gttcttcgtc ggtggcaact 120
ggaaatgcaa tggaaccaca gatcaggctc ataagattgt caaaaccctg aatgaaggac 180
aggttcccc ttcagatggt gtggaggctc ttgtca 216

<210> 107
<211> 188
<212> nucleic acid
<213> Zea mays

<400> 107

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agctcaggct caggaagtgc acgcctccct gagggattgg ctaaagacca acgtcagccc 120
tgaggttgct gaatctacta ggatcattta cggaggctct gtaactgccg cgaactgcaa 180
agagctag 188

<210> 108
<211> 204
<212> nucleic acid
<213> Zea mays

<400> 108

cggctcgagt ctagaagcgc cctctccct ctctctctct ctcttcgccg tccgaagctc 60
cgcaccccaa tctaategac acctcgccga gatgggccgc aagttcttcg tcggtggcaa 120
ctggaaatgc aatggaacca cagatcaggc cgagaagatt gtcaaaaccc tgaatgaagg 180
acaggttccc ccttcagatg ttgt 204

<210> 112
 <211> 259
 <212> nucleic acid
 <213> Zea mays

<400> 112

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 atctaataca cacctcaccg agatggggcg caagttcttc gtcggtggca actggaaatg 120
 caatggaacc acagatcagg tcgagaagat tgtcaaaacc ctgaatgaag gacaggttcc 180
 cccttcagat gttgtggagg tcgttgtcag ccctccttat gtcttccttc ctgtggtcaa 240
 gagccagctg cgccaagag 259

<210> 113
 <211> 294
 <212> nucleic acid
 <213> Zea mays

<400> 113

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 caatctaate gacacctcac cgagatgggc cgcaagttct tcgtcgggtg caactggaaa 120
 tgcaatggaa ccacagatca ggtcgagaag attgtcaaaa cctgaatga aggacaggtt 180
 ccccttcag atgttgtgga ggtcgttgtc agccctcctt atgtcttctt tctgtgtggtc 240
 aagagccagc tgcgccaaga gttccatgtt gctgctcaga actgctgggt gaag 294

<210> 114
 <211> 237
 <212> nucleic acid
 <213> Zea mays

<400> 114

atacaattta gaagcgcccc tctctctctc ccccatcgt acccaatcta atcgacaccc 60
 ggccgagatg ggccgcaagt tcttcgttgg tggcaactgg aaatgcaatg gaaccgcaga 120
 tcaggttgag aagattgtca aaacctgaa tgaaggaaat gttccctctt cagatgttgt 180
 tgaggttggt gtcagtcctc cttatgtgtt cctcccgggt gtcaagagcc agctgcg 237

<210> 115
 <211> 203

<212> nucleic acid
<213> Zea mays

<400> 115

ccaatctaga agcacccttc tccctctctc tctcttcgcc gtccgaagct ccgcacccca 60
atctaatacga cacctcaccg agatggggccg caagttcttc gtcggtggca actggaaaatg 120
caatggaacc acagatcagg tcgagaagat tgtcaaaaacc ctgaatgaag gacaggttcc 180
cccttcagat gttgtggagg tcg 203

<210> 116
<211> 255
<212> nucleic acid
<213> Zea mays

<400> 116

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caatctaatac gacacctcgc cgagatgggc cgcaagttct tcgtcgttg caactggaaa 120
tgcaatggaa ccacagatca ggtcgagaag attgtcaaaa ccctgaatga aggacaggtt 180
cccccttcag atgttggtga ggtcgttggt agccctcctt atgtcttcct tcctgtgggtc 240
aagagccagc tgcgc 255

<210> 117
<211> 209
<212> nucleic acid
<213> Zea mays

<400> 117

tcgccgtccg aagctccgca cccaatcta atcgacacct caccgagatg ggccgcaagt 60
tcttcgtcgg tggcaactgg aaatgcaatg gaaccacaga tcaggtcgag aagattgtca 120
aaaccctgaa tgaaggacag gttccccctt cagatgttgt ggaggtcgtt gtcagccctc 180
cttatgtctt ccttcctgtg gtcaagagc 209

<210> 118
<211> 216
<212> nucleic acid
<213> Zea mays

<400> 118

ctctcttcgc cgtccgaagc tccgcacccc aatctaatacg acacctcacc gagatggggc 60
gcaagttctt cgtcgggtggc aactggaaat gcaatggaac cacagatcag gtcgagaaga 120
ttgtcaaaac cctgaatgaa ggacaggttc ccccttcaga tgttgtggag gtcgttgtca 180
gccctcctta tgtcttcctt cctgtggtca agagcc 216

<210> 119
<211> 160
<212> nucleic acid
<213> Zea mays

<400> 119

acaaaagcaa ttgctgagaa gatcaaggac tggagcaacg tattgttgcc tatgaaccag 60
tttgggctat tggaaactggc aaagttgcca cccagctca ggctcaggaa gtgcacgcct 120
ccctgaggga ttggctaaag accaatgcca gccctgaggt 160

<210> 120
<211> 296
<212> nucleic acid
<213> Zea mays

<400> 120

gtatttagaa ggcgccctcc tcctctcccc catccgtacc caatctaatac gacacccggc 60
cgagatgggc cgcaagttct tcgttggtgg caactggaaa tgcaatggaa ccgcagatca 120
ggttgagaag attgtcaaaa cctgaatga aggaaatgtt cctcttcag atgttgttga 180
ggtcgttgtc agtcctcctt atgtgttctt cccggtggtc aagagccagc tgcgccaaga 240
gttccaagtt gctgctcaga actgctgggt gaagaaggga ggtgcattca ctggtg 296

<210> 121
<211> 238
<212> nucleic acid
<213> Zea mays

<400> 121

caatctagaa gcacccctct cctctctctt ctcttcgcgc tccgaagctc cgcaccccaa 60
tctaatacag acctcaccga gatggggcgc aagttcttcg tcggtggcaa ctggaaatgc 120
aatggaacca cagatcaggt cgagaagatt gtcaaaaacc tgaatgaagg acaggttccc 180

ccttcagatg ttgtggaggt cgttgtcagc cctccttatg tcttccttcc tgtgggtca 238

<210> 122
<211> 303
<212> nucleic acid
<213> Zea mays

<400> 122

catcaaatga atttgttggg gacaagactg cgtatgccct gtctcagggg ctaaagggtca 60
ttgcatgtgt tgggtgagacc cttgagcaga gtgaggctgg gtctaccatg gatgttgttg 120
ctgcacaaac aaaagcaatt gctgagaaga tcaaggactg gagcaacgta gttgttgcct 180
atgaaccagt ttgggtctatt ggaactggta aagttgccac cccagctcag ctcaggaagt 240
gcacgcctac ctgaggggatt ggctaaagac caatgccagc cctgaggatg ctgaatctac 300
tag 303

<210> 123
<211> 242
<212> nucleic acid
<213> Zea mays

<400> 123

caatttagaa gcgccccctc tctctcccc catccgtacc caatctaate gacacccggc 60
cgagatgggc cgcaagttct tcgttgggtg caactggaaa tgcaatggaa ccgcagatca 120
ggttgagaag attgtcaaaa ccttgaaatga cggaaatgtt cctctttcag atgttgttga 180
ggtcgttgtc agtcctcctt atgtgttctt cccggtgggc aagagccagt gcgccaagag 240
tt 242

<210> 124
<211> 327
<212> nucleic acid
<213> Zea mays

<400> 124

cacaaacctc accccaccta tattatcccg tgccccctgt ctttcttctt ccacaagcag 60
cgaaatccaa tctagaagct cccctctccc tccctccctc tctctctctc tcttcgccgt 120
ccgaagctcc gcacccaatc taatcgacac ctcaccgaga tgggccgcaa gttcttcgtc 180

ggtggcaact ggaaatgcaa tggaaccaca gatcagggtcg agaagattgt caaaaccctg 240
aatgaaggac aggttcccc ttcagatggt gtcgagggtcg ttgtcagccc tccttatgtc 300
ttccttctctg tgggtcaagag ccagctg 327

<210> 125
<211> 297
<212> nucleic acid
<213> Zea mays

<400> 125

catccaatct agaagcaccc ctctccctct ctctctcttc gccgtccgaa gtcctcgacc 60
ccaatctaata cgacacctca ccgagatggg ccgcaagttc ttggtcgggtg gcaactggaa 120
atgcaatgga accacagatc aggtcgagaa gattgtcaaa accctgaatg aaggacaggt 180
tcccccttca gatgttgtgg aggtcgttgt cagccctcct tatgtattcc ttcctgtggt 240
caagagccag ctgcgccaag agttccatgt tgctgctcag aactgctggg tgaagaa 297

<210> 126
<211> 253
<212> nucleic acid
<213> Zea mays

<400> 126

ctaaagacca atgccatccc tgaggctgct gaatctgcta ggatcatcta cggaggctct 60
gtaactgctg cgaactgcaa agagctagca gtacagcctg acgtcgatgg ttgtcttgcc 120
gactgagctt ctttgaagcc tgagttcatc gacatcatca acgcggccac cgtgaagtcc 180
gcttaagatg ctacgctgaa gactgaacat acttcttttt gctcaactgt gctatgtaag 240
ctagtagctt ttg 253

<210> 127
<211> 171
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (8)
<223>

gctctgttgg gtgaatccag tgattttgtt gctg 214

<210> 137
 <211> 267
 <212> nucleic acid
 <213> Zea mays

<400> 137

cacgaattca ccaaccaaac tccactgtct ccaactctcc atcgcgctctg ctacgcctct 60
 cctgcaggac gaccaatggc ttccaggaag ttcttcgtgg gtggcaactg gaaatgcaac 120
 ggtactggcg aggacgtgaa gaagatcgtc accgtgctca acgaagccga ggtgccctct 180
 gaagacgtcg tcgaggtggg ggtgagtccg ccgttcgttt ttctgcagca ggtcaagggg 240
 ctgctgcggc tggacttcgc cgtcgca 267

<210> 138
 <211> 191
 <212> nucleic acid
 <213> Zea mays

<400> 138

ggaactcggg gaggtgagca gaggtgggtg tgagtccgcc ttctgttttt ctgcagcagg 60
 tcaaggggct gctgcggctg gacttcgccg tcgcagcgca gaactgctgg gtgcgcaagg 120
 gcggcgccct caccggcgag atcagtgtg agatgctgg aaacctgcag gtgccctgag 180
 tcattttggg a 191

<210> 139
 <211> 322
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (9), (77), (104), (186), (222) ... (223), (273), (286)
 <223> unsure at all n locations

<400> 139

tcacaacana ctccactgtc tccaactctc catcgcgctct gctacgcctc tcctgcatga 60
 cgaccaatgg cttccangaa gttcttcgtg ggtggcaact gganatgcaa cggtactggc 120
 gaggacgtga agaagatcgt caccgtgctc aacgaagccg aggtgccctc tgaagacgtc 180

CCCTGTTGG GTGAATCCAG TGATTTTGTG GCTG

gtcangtggtg tgggtgagtc gccgttcgtt tttctgcagc anngtcaagg gctgctgcgg 240
ctagacttcg ccgtcgcagc gcagaactgc tngtgcgca agggcngcgc cttcaccggc 300
gagatcagtg ctgagatgct gg 322

<210> 140
<211> 240
<212> nucleic acid
<213> Zea mays

<400> 140

caccaaccaa actccactgt ctccaactct ccatcgcgtc tgctacgcct ctctgcagg 60
acgaccaatg gcttccagga agttcttcgt ggggtggcaac tggaaatgca acggtactgg 120
cgaggacgtg aagaagatcg tcaccgtgct caaccaagcc gaggtgccct ctgaagacgt 180
cgtcgaggtg gtggtgagtc cgcctttcgt tttctgcag caggtcaagg ggctgctgcg 240

<210> 141
<211> 284
<212> nucleic acid
<213> Zea mays

<400> 141

accaaactcc actgtctcca actctccatc gcgtctgcta cgcctctcct gcaggacgac 60
caatggcttc caggaagttc ctcgtaggtg gcaactggaa atgcaacggt actggcgagg 120
acgtgaagaa gatcgtcacc gtgctcaacc aagccgaggt gccctctgaa gacgtcgtcg 180
aggtgggtgg gagtccgcct ttcgtttttc tgcagcaggt caaagggctg ctgcggctgg 240
acttcgccgt cgcagcgcag aactgctggg tgcgcaagga ggcg 284

<210> 142
<211> 166
<212> nucleic acid
<213> Zea mays

<400> 142

cacgaattca ccaaccaaac tccactgtct ccaactctcc atcgcgtctg ctacgcctgt 60
cctgcaggac gaccaatggc ttccaggaag ttcttcgtgg gtggcaactg gaaatgcaac 120
ggtagtggcg aggacgtgaa gaagatcgtc accgtgctca accaag 166

CCCTGCTGCG

<210> 143
 <211> 322
 <212> nucleic acid
 <213> Zea mays

 <400> 143

 gcctcctctc ccgttccccc accaaccgca gcagcgagag cgagactgag aatggccgcg 60
 gcgcgctcgt cctcgtgtc ctcccatctc tctcgctcgc ccgacctccg ccgcgcggcg 120
 cgccggccac tcccaccgtc ccacagcagc ttgcgctcgg ctgctcgcac cgccgcgccc 180
 agcgctcgt cgccatggct ggatccggca agttcttcgt cggaggcaac tggaaagtga 240
 acgtaacaaa ggactccgtt agcaagcttg tctctgaact gaatgctgct accctcgaaa 300
 ctgatgtaga tggttggtg gc 322

<210> 144
 <211> 303
 <212> nucleic acid
 <213> Zea mays

 <400> 144

 cctcgccctc gccgcctcct ctcccgttcc cccaccaacc gcagcagcga gagcgagact 60
 gagaatggcc gggcgccgt cgctccctcgt gtccctccat ctctctcgcc tcgccgacct 120
 ccgcgcgcgc cggcgccggc cactcccacc gtcccacagc agcttcgcgt cggtgctcg 180
 ctccgcgcgc cccagcgct cgctgccatg gctggatccg gcaagttctt cgctggaggc 240
 aactggaagt gcaacggaac aaaggactcc gtttagcaagc ttgtctctga actgaatgct 300
 gct 303

<210> 145
 <211> 270
 <212> nucleic acid
 <213> Zea mays

 <400> 145

 ctgcgcgct gctcctctcc agttctcccc caccaaccgc agcagcgaga gcgagactga 60
 gaatggcgc ggcgcgctc tccctcgtgt cctcccatct ctcccgctc gccgacctcc 120
 gccgcgtgc ggcgcggcc actcccaccg tcccacagca gcttcgcgtc ggcttctcgc 180

669270-697420

gccgccgcgc ccagcgcgtc gtcgccatgg ctggatccgg caagttcttc gtcggaggca 240
actggaagtg caacggaaca aaggactccg 270

<210> 146
<211> 301
<212> nucleic acid
<213> Zea mays

<400> 146

ccgacgcgtg ggcgccgcct gtcctctctc agttctcccc caccaaccgc agcagcgaga 60
cgagactgag aatggccgcg gcgccgtcgt cctcgcacac ctcccatctc tcccgcctcg 120
ccgacctccg ccgcgcggcg cgccggccac tcccaccgtc ccacagcagc ttcgcgtcgg 180
cttctcgcgc cgccgcgccc agcgcgtcgt cgccatggct ggatccggca agttcttcgt 240
cggaggcaac tggaagtgca acgtaacaaa ggactccggt agcaagcttg tctctgaact 300
g 301

<210> 147
<211> 282
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (149)
<223>

<400> 147

cccacgcgtc cgcgccgcct gtcctctctc agttctcccc caccaaccgc agcagcgaga 60
gcgagactga gaatggccgc ggcgccgtcg tccctcgtgt cctcccatct ctccgcctc 120
gccgacctcc gccgcgcggc ggcgccggnc cactcccacc gtcccacagc agcttcgcgt 180
cggcttctcg cgccgcgcg cccagcgcgt cgtcgccatg gctggatccg gcaagttctt 240
cgtcggaggc aactggaagt gcaacgcaac aaaggactcc gt 282

<210> 148
<211> 273
<212> nucleic acid
<213> Zea mays

<400> 148
 tcgccctcgc cgctcgtcc tctccagttc tccccacca accgcagcag cgagagcgag 60
 actgagaatg gccgcggcgc cgtcgtccct cgtgtcctcc catctctccc gcctcgccga 120
 cctccgcgcg gcggcgcgcc ggccactccc accgtcccac agcagcttcg cgtcggcttc 180
 tcgcgcgggc gcgccagcg ggtcgtcgcc atggctggat ccggcaagtt cttcgtcgga 240
 ggcaactgga agtgcaacgc aacaaaggac tcc 273

<210> 149
 <211> 275
 <212> nucleic acid
 <213> Zea mays

<400> 149
 acgaactgct accccctcgc ctcgccctcg ccgctcgtc ctctccagtt ctccccacc 60
 aaccgcagca gcgagagcga gactgagaat ggccgcggcg ccgtcgtccc tcgtgtcctc 120
 ccatctctcc cgctcgcgcg acctccgcgc cgcggcgggc ccgagccact cccaccgtcc 180
 cacagcagct tcgcgtcggc ttctcgcgcc gccgcgcca gcgcgtcgtc gccatggctg 240
 gatccggcaa gttcttcgtc ggaggcaact ggaag 275

<210> 150
 <211> 300
 <212> nucleic acid
 <213> Zea mays

<400> 150
 tggacgaact gctacccct cgctcgcgc tcgcgcctg ctctctcca gttctcccc 60
 accaaccgca gcagcgagag cgagactgag aatggccgcg gcgcgctgt cctcgtgtc 120
 ctcccatctc tccgcctcgc ccgacctcg ccgcggggc gcgcgggacc actcccacag 180
 tcccacagca gtttcgcgtc ggcttctcgc gccgcgcgc ccagcgcgtc gtcgccatgg 240
 ctggatccgg caagttcttc gtcggaggca actggaagtg cgtaagtgca tgttctgctt 300

<210> 151
 <211> 255
 <212> nucleic acid
 <213> Zea mays

<400> 151
acgaactgct accccctcgc ctgcacctcg ccgcctgctc ctctccagtt ctccccacc 60
aaccgcagca gcgagagcga ggactgagaa tggccgcggc gccgtcgtcc ctcggtgcct 120
cccatctctc ccgcctcgcg gacctccgcc gcgcggcggc gccggccact cccaccgtcc 180
cacagcagct tcgcgtcggc ttctcgcgcc gccgcgccca gcggtcgtcg ccatggctgg 240
atccggcaag ttctt 255

<210> 152
<211> 283
<212> nucleic acid
<213> Zea mays

<400> 152
cgaaccttgg cgtctgccct accaaccgca gcagcgacac tagaatggcc gcggcgccgt 60
catccctcgc gtctctccac ctctcccaa tcgcggcggt gtccactccc gccgtccac 120
atcagcttcg catcggtcgc tcccgccgcc gcgcccagcg catcgttgcc atggctggat 180
ccggcaagtt ctctcgtcga ggcaactgga agtgcaatgg aacaaaggac tccattagca 240
aacttgtctc tgaattgaat gctgctaccc ttgaaactga tgt 283

<210> 153
<211> 282
<212> nucleic acid
<213> Zea mays

<400> 153
ccgaaccttg gcgtctgcc taccaaccgc agcagcgaca ctagaatggc cgcggcgccg 60
tcacccctcg cgtctccca cctctccca atcgggcggt tgtccactcc cgcgtccca 120
catcagcttc gcaccggctg ctcccgccgc cgcgccagc gcacgttgcc catggctgga 180
tccggcaagt tcttcgtcgg aggcaactgg aagtgcaatg gaacaaagga ctccattagc 240
aaacttgtct ctgaattgaa tgctgctacg cctgaaactg at 282

<210> 154
<211> 235
<212> nucleic acid
<213> Zea mays

<400> 154
 cggctcgagc aaccgcagca gcgacactag aatggccgcg gcgccgtcat ccctcgcgtc 60
 ctcccagctc tccccaatcg tcgggggtgtc cactcccgcc gtcccacatc agcttcgcat 120
 cggctgctcc cgccgccgcg cccggcgcat cgttgccatg gctggatccg gcaagttctt 180
 cgtcggaggg ccctggacgt gcaatggaac aaaggactcc attaacaaac ttgtc 235

<210> 155
 <211> 273
 <212> nucleic acid
 <213> Zea mays

<400> 155
 gctttctagtc cctcgccctac cccgcccccg aacctggcgt ctgccctacc aaccgcagca 60
 gcgacactag aatggccgcg gcgccgtcat ccctcgcgtc ctcccacctc tccccaatcg 120
 cggcggtgtc cactcccgcc gtcccacatc agcttcgcat cgcttgctcc cgccgccgcg 180
 ccggggcgcat cgttgccatg gctggatccg gcaagttctt cgtcggaggg aactggaagt 240
 gcaatggaac aaaggctcca ttagcaaact tgt 273

<210> 156
 <211> 305
 <212> nucleic acid
 <213> Zea mays

<400> 156
 cagagagagg caggaacaac aatggatggt gttgctgcac aaacaaaggc tattgctgaa 60
 aaaatatcag attggacaaa tattgtgttg gcatatgaac cagtttgggc tattggtacc 120
 ggcaaagttg caactcctgc tcaggctcag gaggttcatg atggtctgag aaagtggctc 180
 cactccaatg ttagccctgc agttgctgaa ttgacaagga taatttatgg agggctctgta 240
 aatggagcta actgcaaaga acttgagct caaccagatg ttgatggatt ccttgttggt 300
 ggagc 305

<210> 157
 <211> 290
 <212> nucleic acid
 <213> Zea mays

<400> 157
cattggacaa atattgtgtt ggcatatgaa ccagtttggg ctattggtac cggcaaagtt 60
gcaactcctg ctcaggctca ggaggttcat gatggtctga gaaagtggct ccaactccaat 120
gttagccctg cagttgctga attgacaagg ataatttatg gagggctctgt aaatggagct 180
aactgcaaag aacttgcagc tcaaccagat gttgatggat tccttggttg tggagcctca 240
ttgaagcctg aattcgtgga catcatcaag tctgccactg tcaagtcttc 290

<210> 158
<211> 309
<212> nucleic acid
<213> Zea mays

<400> 158
aaacttttga agtatgtttt gagcagatga aggcttttgc agatagtatt tcaaactggg 60
ccgatgttgt gattgcatat gagcctgttt gggctatttg aaccggaaaa gttgctactc 120
ctgagcaagc ccaggaagtt catgctgctg tacgcgattg gttgacgacc aacatatcac 180
ctgatgttgc ctctagcacc cgaataatct atggagggtc tgtgaatgca gccaaactgtg 240
cagagctagc aaagaaagag gatatcgatg gttttcttgt tgggtggtgcc tccttgaagg 300
ccccggact 309

<210> 159
<211> 280
<212> nucleic acid
<213> Zea mays

<400> 159
gtgattgcat atgagcctgt ttgggctatt ggaaccggaa aagttgctac tcctgagcaa 60
gcccaggaag ttcatgctgc tgtacgcgat tggttgacga ccaacatata acctgatgtt 120
gcctctagca cccgaataat ctatggaggt tctgtgaatg cagccaactg tgcagagcta 180
gcaaagaaag aggatatcga tggttttctt gttggtggtg cctccttgaa ggccccggac 240
ttcgccacca ttatcaactc agtgaccgcc aagaaagttg 280

<210> 160
<211> 295
<212> nucleic acid

<213> Zea mays

<220>

<221> unsure

<222> (263)

<223>

<400> 160

cagttaaggt tatctgccgt gcatagcgag agcgttcttg aagagtaggg atgcagggat 60

aacttttgaa gtatgttttg agcagatgaa ggcttgtgca gatagtattt caaactgggc 120

cgatgttggtg attgcatatg agcctgtttg ggctattgga accggataag ttgctactcc 180

tgagcaagcc caggaagttc atgctgctgt acgcgattgg ttgacgacca acatatcacc 240

tgatgttgcc tctagcaatt ttntaatcta tggaggttct gtgaatgcag ccaac 295

<210> 161

<211> 242

<212> nucleic acid

<213> Zea mays

<400> 161

agagagggaa gcaggcaaaa cttttgatgt atgttttagg cagatgaagg cttttgcaga 60

tagtatttca aactgggcag atgttgtaat tgcatacgag cctgtttggg cgattggaac 120

cggaaaagtt gctactcctg agcaagccca ggaagttcat gctgctgtac gcaattggct 180

gaagaccaac atatcacccg atgttgccct tagcactcga ataatctatg gaggttctgt 240

ga 242

<210> 162

<211> 237

<212> nucleic acid

<213> Zea mays

<400> 162

cggaaaagtt gctactcctg agcaagccca ggaagttcat gctgctgtac gcgattgggt 60

gacgaccaac atatcacctg atgttgccct tagcacccga ataatctatg gaggttctgt 120

gaatgcagcc aactgtgcag agctagcaaa gaaagaggat atcgatgggt ttcttgttgg 180

tggtgcctcc ttgaaggccc cggacttcgc caccattatc aactcagtga ccgccaa 237

<210> 163
 <211> 314
 <212> nucleic acid
 <213> Zea mays

 <400> 163

 cccacgcgtc cggcctcggt gaaggccccg gacttcgcca ccattatcaa ctcagtgacc 60
 gccaaagaaag ttgcagcctg atggaccacc ctgtgagaaa taagaggcca tcagcgtgtc 120
 gcctcatctg ccacgcctta aagcctgtat aggaggtgat ccgtgtgatg gtgtgcccgt 180
 cacctcctgt ttttgtgat ttgcagcacg gggacagaaa ataatgtttt gctctcgtgg 240
 acctgcactg cacgtgacga ggagagttca gttgtcgtga gcgatgtacg ttggggatat 300
 tgtgatgtgg tcct 314

<210> 164
 <211> 167
 <212> nucleic acid
 <213> Zea mays

 <220>
 <221> unsure
 <222> (148), (151)
 <223> unsure at all n locations

 <400> 164

 cggaggttct gtgaatgcag ccaactgtgc agagctagca aagaaagagg atatcgatgg 60
 ttttgttggt ggtggtgcct ccttgaaggc cccggacttc gccaccatta tcaactcagt 120
 gaccgccaag aaagttgcag cctcgtgnga ncacctgtga agaaata 167

<210> 165
 <211> 368
 <212> nucleic acid
 <213> Zea mays

 <400> 165

 ttccggctcga ggaattgaat gctgtaccct tgaaactgat gtagatgttg tgggtggcaca 60
 tccattcatc tatattgatc aggttaagaa ttcactaact ggtcgcattg aggtttctgc 120
 tcagaatgtg tggattggaa aaggaggagc ctacaccgga gagatcagtg cagaacaact 180
 ggtggacatc ggctgtcaat gggttattct tggacactct gagcgtagac atattattgg 240

tgaaaatgat gagttttattg gaaagaaggc tgcatatgca ttgagcccaa atgttaaggt 300
tattgcctgc ataggagagc tgctggaaga gaggggaagca ggcaatactt ttgatgtatg 360
tctaggca 368

<210> 166
<211> 304
<212> nucleic acid
<213> Zea mays

<400> 166

cctcgaaaact gatgtagatg ttgtggtggc tcctccattc atctatatcg atcaggtcaa 60
gaattcacta acgggtcgca ttgaggtttc tgctcagaat gtgtggattg gaaaaggagg 120
agcctacacc ggagagatca gtgcagaaca actggtggac atcggttgtc aatgggttat 180
tcttggaacac tcagagcgta gacatattat tggtgaaaat gacgagtta ttgggaagaa 240
ggctgcatat gcattgagcc aaaatgttaa gggtattgcc tgcataaggag agcttctgga 300
agag 304

<210> 167
<211> 261
<212> nucleic acid
<213> Zea mays

<400> 167

gtggtggcac ctccatttat ctatattgat cagggttaaga attcactaac tggtcgcatt 60
gaggtttctg ctcagaatgt gtggattgga aaaggaggag cctacaccgg agagatcagt 120
gccgaacaac tgggtggacat cggctgtcaa tgggttattc ttggacactc tgagcgtaga 180
catattattg gtgaaaatga tgagtttatt ggaaagaagg ctgcatatgc attgagccaa 240
aatgttaagg gtattgcctg c 261

<210> 168
<211> 225
<212> nucleic acid
<213> Zea mays

<400> 168

tctatatcga tcagggtcaag aattcactaa cgggtcgcat tgaggtttct gctcagaatg 60

tgtggattgg aaaaggagga gcctacaccg gagagatcag tgcagaacaa ctggtggaca 120
 tcggttgatca atgggttatt cttggacact cagagcgtag acatattatt ggtgaaaatg 180
 acgagtttat tgggaagaag gctgcatatg cattgagcca aaatg 225

<210> 169
 <211> 328
 <212> nucleic acid
 <213> Zea mays

<400> 169

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 ggccgagatg ggccgcaagt tcttcggttg tggcaactgg aaatgcctgg aagagcccg 120
 gttctttcttc caatgcgcct gtgcttccag gctccagccc agagcaaatac gtaaaagccc 180
 ttcataagtt tcgtgatgca tgttgtctgt aggagcagag gagttcgata tccaactttt 240
 ggagacccat tctcggttgc tgcacgaatt aaccttacgt ttcttgcacat ggagctcggg 300
 gcttgctcaa tctgagcata ggttggag 328

<210> 170
 <211> 228
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (13), (24), (28), (41), (44), (53), (70), (77), (95) ... (96),
 (135) ... (136), (140), (152), (162), (186), (199), (202), (204),
 (211) ... (212), (216), (219), (221) ... (222), (224)
 <223> unsure at all n locations

<400> 170

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 tagggttcan ggctggncgc cctgaaagga gaacnntaat aagaaaataa catgaattcg 120
 ggatccgcag agtcnncgtn tgcggcgccg gngggactaa angtcattgc atgtgttgcc 180
 gagacncttg aacacaacna gntngtggac nncatnctnc nncncggg 228

<210> 171
 <211> 339
 <212> nucleic acid
 <213> Zea mays

<400> 171
ctagagtttt gcagcaacct agcactaagg ctcttgctaa aaagggaaaa cagcaagcat 60
tgacaagtgc tgaagaacca gatgagcctc ctctgtgaag aggagcctac accggactga 120
tcagtgcaaa acaactgggtg gacatcatct gtcaatggat gattcttgga cactctgagc 180
gtagacatat tattgggtgaa aatgatgagt ttattggaaa gaaggctgca tatgcataga 240
gccaaaatgt taagggcatt gcctgcatag gagagctgct tgaagagagt gaagcatgca 300
aaactcttaa tgtatgttga atgcagatga aggcttttg 339

<210> 172
<211> 348
<212> nucleic acid
<213> Zea mays

<400> 172
aacacgcgtc cggcctcctt gaaggccccg gacttcgcca ccattatcaa ctcagtgacc 60
gccaagaaag ttgcagcctg atggaccacc ctgtgaagaa ataagaggcc atcaccgtgt 120
cgctcatct gccacgcctt aaagcctgta ggaggcgtca cctcctgttt ttgctgattt 180
gcagcacggg gacagaaaat aatgttttgc tctcgtggat ctgcacgtga cgaggagagt 240
tcagttgtcg tgagcgatgt acgttgggaa tattgttatg tggtcctttt ctaaagaaaa 300
aaaatgttga cagtcaagga aaaataataa aaaaaggcgg ccgctcta 348

<210> 173
<211> 373
<212> nucleic acid
<213> Zea mays

<400> 173
gcgcgcctcg gcttcagcgc catggcgccc tccaggaagt tcttcgttgg gggagactgg 60
gagaagaacg ggcggaagca cagtctgggg gagctcatcg gcactctgaa cgcggtcaag 120
gtgccggccg acaccgatgt ggaacgtgct cagcatactg cctatatcga cttagtccgg 180
cagaagctag atcccaagaa cgctgaggct gcgcagaact gctacaaaagt gactaatgac 240
gcttgaactg atgagatcag ccctggcatg atcaaact gcggagccac acgggcggta 300
ctggggcact cagagagaac gcatgtcttt ggggagtcag atgagctgat tgggcacaaa 360

gtgcgccatg ctc

373

<210> 174
<211> 442
<212> nucleic acid
<213> Zea mays

<400> 174

gggtggagctt ctttgaagcc tgagttcatc gacatcatca acgcggccac cgtgaagggc 60
gctgaagatg ttacgctgaa gacgaacata cttttttttt gctcaactgt gctatgtaag 120
ctagtagctt ttgcgcagga gcagagactg ttttgccctgc ccccaacttt tagcttgagc 180
ttgctaataa tgtttacctc tggacgtatc aataatgggtg cttatgtacc ctttttttgt 240
gccgaattac ggtggatccg tcatctgaac catggggttg gtgtatgtaa ttgcgtcacc 300
cgatgcctaa ggtgagactg aagtttttgg acatttgga caaggtagcc ttgtgccccca 360
cattggctga atgctgcca aactgtaccg gtcacatctgtg ctccgtacgg attagcctga 420
tctgcgaatg caacttgtca gc 442

<210> 175
<211> 433
<212> nucleic acid
<213> Zea mays

<400> 175

cccacgcgtc cgggatcatt tacggaggct ctgtaactgc cgcgaactgc aaagagctgg 60
cagcacagcc tgatgtcgat gggtttcttg tccgtggagc ttctttgaag cctgagttca 120
tcgacatcat caacgcggcc accgtgaagt ccgcttaaga tgttacgctg aagacgaaca 180
tacttttttt ttgctcaact gtgctatgta agctagtagc ttttgccag gagcagagac 240
tgttttgcct gcccccaact tttagcttga gcttgctaat aatgtttacc tctggacgta 300
tcaataatgg tgcttatgta cccctttttt gtgccgaatt acggtggatc cgtcatctga 360
accatgggtt tgggtgatgt aattgcgtca cccgatgcct atggtgagac tgaagttttt 420
ggacatttgg gac 433

<210> 176
<211> 427

<223> unsure at all n locations

<400> 178

agggtttntc aacgtcacgt cgcacggaca gtacagacta cacggtcgag cacgcgtccg 60
accacacgtc cgcccacgcg tccggctgcg ccaaaatttc aatgttgcg ctcaaaactg 120
ctgggttaaac aaggagggtc ctttcaactgg tgaactcagt gctgagatgc tcgtcaacct 180
tggtgttccc tgcgtcattc ttggacactc tgaaacgaga gctctgctgg gagaatcaaa 240
tgaatttggt ggagacaagg ttgcgtatgc cctgtctcag ggactaaagg tcattgcatg 300
tggttggtgag acccttgagc agaaggaggc tgggtctnac atggatgttg ttgctgcaca 360
aacaaaagca attgctgaga agatcaagga ctggagcaac gtacttggtg cctatgaacc 420
agtttgggct attggaactg gtacagttgc cacctcagct caggctcagg a 471

<210> 179

<211> 402

<212> nucleic acid

<213> Zea mays

<400> 179

cccacgcgtc cgcccacgcg tccggacaag gttgcgtatg ccctgtctca gggactaaag 60
gtcattgcat gtgttggtga gacccttgag cagagggagg ctgggtctac catggatgtt 120
gttgetgcac aaacaaaagc aattgctgag aagatcaagg actggagcaa cgtagttgtt 180
gcctatgaac cagtttgggc tattggaact ggtaaagtgt ccaccccgag tcaggctcag 240
gaagtgcacg cctccctgag ggattggcta aagaccaatg ccagccctga ggttgctgaa 300
tctactagga tcatctacgg aggtctgtga actgctgcga actgcaaaga gctagcagca 360
cagcctgatg tcgatgggtt tcttgctcgt ggagcttctt tg 402

<210> 180

<211> 450

<212> nucleic acid

<213> Zea mays

<400> 180

atttagaagc gccctcctc ctctccccct tccgtaccca atctaatacga caccgggccg 60
agatggggcg caagttcttc gttggtggca actggaaatg caatggaacc gcagatcagg 120

agttccaagt tgctgctcag aactgctggg tgaagaaggg aggtgcattc actggtgaaa 300
 ttagtgctga aatgctcgtc aaccttggcg ttccctgtgt cattcttga cactctgaaa 360
 ggagagctct gctgggagaa tcaaatg 387

<210> 183
 <211> 404
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (397)
 <223>

<400> 183

acttgagcag agggaggctg ggtctaccat ggaggttggt gctgcacaaa caaaagcagt 60
 tgctgagaag atcaaggact ggagcaacgt agttgttgcc tatgaaccag tttgggctat 120
 tggaactggg aaagttgcc cccagctca ggctcaggaa gtgcacgcct ccctgaggga 180
 ttggctaaag accaacgtca gccctgaggt tgctgaatct actaggatca tttacggagg 240
 ctctgtaact gccgcgaact gcaaagagct agcagcacag cctgatgtcg atgggtttct 300
 tgctgggtgga gcttctttga agcctgagtt catcgacatc atcaacgcgg ccaccgtgaa 360
 gtccgcttaa gatgttacgc tgaagacgaa catactnttt tttt 404

<210> 184
 <211> 413
 <212> nucleic acid
 <213> Zea mays

<400> 184

aatccaatct agaagcacc ctctccctct ctctctcttc gccgtccgaa gtcctgcacc 60
 ccaatcta atcgacacct cagagatggg ccgcaagtcc ttcgtcgggt gcaactggaa 120
 atgcaatgga accacagatc aggtcgagaa gattgtcaaa accctgaatg aaggacaggt 180
 tcccccttca gatgttggtg aggtcggtgt cagccctcct tatgtcttcc ttctgtgggt 240
 caagagccag ctgcgccaa agttccatgt tgctgctcag aactgctggg tgaagaaggg 300
 aggtgctttc actggtgaag tcagtgtga gatgctcgtc aaccttgggt ttccctgggt 360
 cattcttga cactctgaaa ggaaagctct gctgggaaaa tcaaatgaat ttg 413

<210> 185
 <211> 423
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (7), (9) ... (11), (29), (47), (55), (72)
 <223> unsure at all n locations

<400> 185

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agggggntnn naacagggcc ccagtcccnc gcacgtcca ccggaangga agggncgacc 60
cgagcgagcg gntgctcaga actgctgggt gaagaagggt tgtgcattca ctggtgaaat 120
tagtgctgaa atgctgggtca accttggcgt tccctgggtc attcttggac actctgaaag 180
gagagctctg ctgggagaat caaatgagtt tgttggagac aaggttgctt ttgctctgtc 240
tcagggacta aaggtcattg catgtgttgg tgagaccctt gaggagaggg aggctgggtc 300
aaccatggat gttgttgctg cacaacaaaa agcaattgct gagaagatca aggactggag 360
caacgttggt cttgcctatg aaccagtctg ggctattgga actggcaaaag tcgccacccc 420
agc 423
  
```

<210> 186
 <211> 423
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (354)
 <223>

<400> 186

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aagctccgac ccaatctaata cgacacctca ccgagatggg ccgcaagttc ttcgtcgggtg 60
gcaactggaa atgcaatgga accacagatc aggtcgagaa gattgtcaaa accctgaatg 120
aaggacaggt tcccccttca gatgttgtcg aggtcgttgt cagccctcct tatgtcttcc 180
ttcctgtggc caagagccag ctgcgccaaag agttccatgt tgctgctcag aactgctggg 240
tgaagaaggg aggtgctttc actgggtgaag tcagtgtgta gatgctcgtc aaccttggtg 300
ttccctgggt cattcttggc cactctgaaa ggagagctct gctaggagaa tcanatgaat 360
  
```


ctgttgagaga caagggttgcg tatgccctgt cttaaggact aaaggtcatt gcatgttggtg 420
gtg 423

<210> 187
<211> 379
<212> nucleic acid
<213> Zea mays

<400> 187

gggaggtgca ttcaactggtg aaattagtgc tgagatgctc gtcaaccttg gcgttccctg 60
ggtcattctt ggacactctg aaaggagagc tctgctggga gaatcaaag agtttggttg 120
agacaagggtt gcttttctgc tgtctcaggg actaaaggtc attgcatgtg ttggtgagac 180
ccttgaggag agggaggtg gttcaacat ggatgttggt gctgcacaaa caaaagcaat 240
tgctgagaag atcaaggact ggagcaacgt tgttcttgcc tatgaaccag tctgggctat 300
tggaactggc aaagtcgcca cccagctca ggctcaggaa gtgcacgcct tcctgagggg 360
ttgggtaaag atcaatgtc 379

<210> 188
<211> 349
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (286)
<223>

<400> 188

cggacgcgtg ggctgaaagg agagctctgc tgggagaatc aaatgaattt gttggagaca 60
aggttgcgta tgccctgtct cagggactaa aggtcattgc atgtgttggt gagacacttg 120
agcagagggg ggctgggtct accatggagg ttgttgctgc acaaacaaaa gcaattgctg 180
agaagatcaa ggactggagc aacgtagttg ttgcctatga accagtttgg gctattggaa 240
ctggtaaagt tgccaccca gctcaggctc aggaagtgca cgctncctg agggattggc 300
taaagaccaa cgtcagccct gaggttgctg aatctactag gatcattta 349

<210> 189

<211> 314
 <212> nucleic acid
 <213> Zea mays

 <400> 189

 caggctcgaga agattgtcaa aaccttgaat gaaggacagg tcccccttc agatgttggtg 60
 gaggtcggtg tcagccctcc ttatgtcttc cttcctgtgg tcaagagcca gctgcgccaa 120
 gagttccatg ttgcggctca gaactgctgg gttaagaagg gaggtgcttt caccggtgaa 180
 gtcagtgtg agatgtctgt caaccttggg gttccctggg tcattcttgg acactctgaa 240
 aggagagctc tgctgggaga atcaaatgaa tttgttgagg acaagggtgc gtatgccctg 300
 tctcagggac taaa 314

<210> 190
 <211> 360
 <212> nucleic acid
 <213> Zea mays

 <400> 190

 gcctctgttg gccgttcgaa tctccgcacc caatttaatc gacacctcac cgagatgggc 60
 cgcagagttc ttcgtcgggtg gcaactggaa atgcaatgga accacagatc aggtcgagaa 120
 gattgtcaaa accctgaatg aaggacagggt tcccccttca gatgttgctg aggtcgttgt 180
 cagccctcct tatgtcttcc ttcctgtggg caagagccag ctgcgccaag agttccatgt 240
 tgctgctcag aactgctggg tgaagaaggg aggtgctttc actggtgaag tcagtgtgta 300
 gatgctcgtc aaccttgggtg ttccttgggt cattcttggg cactctgaaa agagagctct 360

<210> 191
 <211> 338
 <212> nucleic acid
 <213> Zea mays

 <400> 191

 gccaaataca atttagaagc gcccctcctc ctctccccc tccgtaccca atcgaatcga 60
 caccgggccg agatgggccg caagttcttc gttggtggca actggaaatg caatggaacc 120
 gcagatcagg ttgagaagat tgtcaaaacc ctgaatgaag gaaatgttcc ctcttcagat 180
 gttgttgagg tcgttgctcag tctccttat gtgttccctc cgggtggtcaa gagccagctg 240

<213> Zea mays

<400> 194

tcggccacgc cgttcgccac gcgttcgctt ggacactctt aaaggagagc tcttcttgga 60
 gaatcaaagc aatttggttg agacaaagtt gcgtatgccc tgtctcaggg actaaaggctc 120
 attgcatgtg ttggtgagac acttgagcag aaggaggctg ggtctaccat ggagggttgg 180
 gctgcacaaa caaaagcaat tgctgagaag atcaaggact ggagcaacgt agttgttgcc 240
 tatgaaccag tttgggctat tggaact 267

<210> 195

<211> 241

<212> nucleic acid

<213> Zea mays

<400> 195

tcgtgctcac tctacaagga gagctctgct gggagaatca aatgaatttg ttggaaacaa 60
 ggttgcgatg gccctgtctt agggactaaa ggtcattgca tgtgttggtg agacccttga 120
 gcagaaggag gctgggtota ccatggatgt tgggtgctgca caaacgaaag caattgctga 180
 gaagatcaag gactggagca acgtagtttg tgccatgaa ccatgttggg ctatcggaac 240
 t 241

<210> 196

<211> 260

<212> nucleic acid

<213> Zea mays

<400> 196

atccaatota gaagctcccc tctccctccc tccctctctc tctctctctt cgccgtccga 60
 agctccgcac ccaatctaata cgacacctca ccgagatggg ccgcaagttc ttcgtcgggtg 120
 gcaactggaa atgcaatgga accacagatc aggtcgagaa gattgtcaaa accctgaatg 180
 aaggacaggt tcccccttca gatgttgctg aggtcgttgt cagccctcct tatgtcttcc 240
 ttctgtggt caagagccat 260

<210> 197

<211> 398

<212> nucleic acid

<213> Zea mays

<400> 197

cagccctgag gtctctgaat ctacaaggat catctatgga ggttcagtaa ctgctgcgaa 60
 ctgcaaagag ctggcagcac agcctgatgt cgatggtttc cttgtgggag gtgcttcttt 120
 gaagcccgag ttcatcgaca tcatcaacgc cgccgccgtg tgaagtccgc tgaagatggt 180
 ccaacccttc accctgttgc ggtgatgtgc tgaagacaga tcagactact tttttgttta 240
 accgtgcagt gctatgtaag ctactaactt tgcgctgggtg cggatgctga tttccctccc 300
 cctagctttt tgtgaggcta ctctacagct tgattcagct tgctaataat gtttgcctct 360
 ggacatagcg atagtgggtg ttgtgtagcc cttttttt 398

<210> 198

<211> 231

<212> nucleic acid

<213> Zea mays

<400> 198

caatttagaa gcgccccctc tcctctcccc atccgtgacc caatctaata gacacccggc 60
 cgagatgggc cgcaagttct tcgttgggtg caactggaaa tgcaatggaa ccgcagatca 120
 ggttgagaag attgtcaaaa ccctgaatga aggaaatggt cctctttcag atgtcgttga 180
 ggtcgttgtc aagcctactt atgtgttctt cccggtgggc aagagccagc t 231

<210> 199

<211> 304

<212> nucleic acid

<213> Zea mays

<400> 199

ctgcaaagag ctggcagcac agcctgatgt cgatggtttc cttgtgggag gtgcttcttt 60
 gaggcccgag ttcatcgaca tcatcaacgc cgccgccgtg tgaagtccgc tgaagatggt 120
 ccaacccttc accctgttgc ggtgatgtgc tgaagacaga tcagactatt tttttgttta 180
 accgtgcagt gctatgtaag ctactaactt tgcgctgggtg cggatgctga tttccctccc 240
 cctagctttt tgtgaggcta ctctacagct tgattcagct tgctaataat gtttgcctct 300
 ggac 304

acggacgccg ccgtcgtata aataaaaagta accgtcgaga agactaagga tcggagtaat 420
gccgcctccg ttcacgaatt agctcgggtc accggaatcg gtaaagctg 469

<210> 202
<211> 466
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (309)
<223>

<400> 202

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ggcaactgga aatgcaacgg tactggcgag gacgtgaaga agatcgtcac cgtgctcaac 120
caagccgagg tgccctctga agacgtcgtc gaggtgggtg tgagtccgcc tttcgttttt 180
ctgcagcagg tcaaggggct gctgcggctg gacttcgccg tcgcagcgca gaactgctgg 240
gtgcgcaagg gcggcgctt caccggcgag atcagtgtg agatgctgg aaacctgcag 300
gtgccctgng tcattttggg acattctgag cgcagagctc tggttgggtga atccagtgat 360
tttgttgctg ataaagttgc atatgcactc actcaaggtc tcaaggtaat tgcttgcat 420
ggtgagaccc ttgagcagag agaggcagga acaacaatgg atgttg 466

<210> 203
<211> 402
<212> nucleic acid
<213> Zea mays

<400> 203

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cgcccccgaa cctggcgtct gccctaccaa ccgcagcagc gacactagaa tggccgcggc 120
gccgtcatec ctgcggtcct cccacctctc cccaatcgcg gcggtgtcca ctcccgccgt 180
cccacatcag cttcgcacgt gctgctcccg ccgacgcgcc gggcgcatcg ttgccatggc 240
tggatccggc aagttcttcg tcggaggcaa ctggaagtgc aatggaacaa aggactccat 300
tagcaaactt gtctctgaat tgaatgctgc tacccttgaa actgatgtag atgttggtg 360
ggcacccctca tttatctata ttgatcaggt taaagaattc ac 402

<210> 204
 <211> 415
 <212> nucleic acid
 <213> Zea mays

<400> 204

aatgggttat tcttggacac tctgagcgta gacatattat tggtgaaaat gaggagtgtgta 60
 ttggaaagaa ggctgcatat gcattgagcc aaaatgttaa ggttattgcc tgcataaggag 120
 agctgctgga agagagggaa gcaggcaaaa cttttgatgt atgttttagg cagatgaagg 180
 cttttgcaga tagtatttca aactgggcag atgttgtaat tgcatacgag cctgtttggg 240
 ctattggaac cggaaaagtt gctactcctg aacaagccca ggaagtcat gctgctgtac 300
 gcaattggct gaagaccaac atatgaccgc atgttgctc tagcactcga ataactctatg 360
 gaggatctga gaatgcatgc aactgtgcgg agctagcaaa gaaagaagat attga 415

<210> 205
 <211> 433
 <212> nucleic acid
 <213> Zea mays

<400> 205

gcgattgggtt gacgaccaac atatcacctg atgttgctgc tagcacacga ataactctatg 60
 gaggttctgt gaatgcagcc aactgtgcag agctagcaaa gaaagaagat atcgacgggtt 120
 ttcttgttgg tgggtgctcg ttgaaggccc cggacttcgc caccattatc aactcagtga 180
 ccgccaagaa agttgcagcc tgatggacca ccctgtgaga aataagaggc catcagcgtg 240
 tcgctcctc tgccacgct taaagcctgt ataggagggtg atccgtgtga tgggtgtgccc 300
 gtcacctcct gtttttctg atttgcagca cggggacaga aaataatgtt ttgctctcgt 360
 ggacctgcac tgcacgtgac gaggagagtt cagttgtcgt gagcgatgta cgttggggat 420
 attgtgatgt ggt 433

<210> 206
 <211> 429
 <212> nucleic acid
 <213> Zea mays

<400> 206

gggtggcacct ccattcatct atattgatca ggттаагаат tcactaactg gtcggattga 60
 ggttttctgct cagaatgtgt ggattggaaa aggaggagcc tacaccggag agatcagtgc 120
 agaacaactg gtggacatcg gctgtcaatg ggттattctt ggacactctg agcgtagaca 180
 tattattggт gaaaatgatg agttttattgg aaagaaggct gcatatgcat tgagccaaaa 240
 tgттаaggтт attgcttgca taggagagct gctggaagag agggaagcag gcaaaacttt 300
 tgatgtatgt тttaagcaga tgaaggcttt tgcagatagt atttcaaact gggcagatgt 360
 tgтаattgca tacgaacctg тttgggctat tggaaccgga aaagttgcta cttcttgaac 420
 aaccaaga 429

<210> 207
 <211> 298
 <212> nucleic acid
 <213> Zea mays

<400> 207

ccattcctcc caaaaacaca tcttgcgac ctcgaagcct ccgccgagca tcgatcatgt 60
 cggcctactg cggcaagtac gcgggtacgt tccatcgtct cctccttcgt tgctgatctg 120
 cttgtgatgt cgtttggcct cgtgtgtcgt agatctacga tctactagtt gttcgttgтт 180
 gatgccctca gatctacctg cgtttgaoga gtatgttaac gattcgtcta gctctgagag 240
 acccaagggg тttgcggatc ctttttttaga tccgtacagg ctcttgcggt cgtgccta 298

<210> 208
 <211> 288
 <212> nucleic acid
 <213> Zea mays

<400> 208

cgtcagatc tcgctgtgat tgatgggtat gctaaggcta acggtatat ggacgggaga 60
 aactctttg tagactgtac tgtccacaga tcggagtttg aaatggaatg tgtggacaga 120
 aatctggtgg cctagcctaa cgattcgtat aggtctgaga gactcgttca gttgtaggat 180
 ttgtggattt тtttttagatc cgtacaggat tgtgctgtcg tgtgcccgcc aagtgcttgg 240
 tggttgccaa aaggtgatgc ctctgatcgg тttggatatg ggatttgc 288

<210> 209
 <211> 61
 <212> nucleic acid
 <213> Zea mays

<400> 209

ctcccagcac cacctcgccg cgatctccgt agcgtccgtc gcgtcgagca tcgatcatgt 60
 c 61

<210> 210
 <211> 325
 <212> nucleic acid
 <213> Zea mays

<400> 210

agtcagatat gtaaactcgtt taaagctttg tgctagtcta atcttgatct gtgggttcctt 60
 ttagtcatga tgtttatgcc gatacaatta tatataaagc agtttttggg taataaacag 120
 taaacttcct gaattaataa ttaaagttta ttttgtatta ttcaggatgg cctcctgatt 180
 tgataatgga agtcattttg tattattcag tatagccttg gtacctggta gatagccatg 240
 cttattatgc atattgtttt gcagatgagc tcatcaagaa tgctgcctac attggcaccc 300
 ccggcaaggg tatecttget gctga 325

<210> 211
 <211> 297
 <212> nucleic acid
 <213> Zea mays

<400> 211

tgcaccacag gaaagcgctg ccaccggcac catgccccac ccatacccag cactgacccc 60
 ggaccatata aaggagcttg ctgacatcgc tcaccgcatt gtagctccgg gcaagggcat 120
 cctggctgca gacgagtcca ctggaagcac tgccaagcgc ctgcagtcca ttggcagcga 180
 gaacaccgag gagaacaggc gtttctaccg ccaactgctg ctgactgccg atgaccgtgt 240
 gaatccctgc attggaaggg tgatcctttt ccacgagaca ctataccaga aggcaga 297

<210> 212
 <211> 167
 <212> nucleic acid
 <213> Zea mays

<400> 212
 tgtctatctg gaaggcacac tgctgaagct catcattgtc acccctggcc atgcttgac 60
 ccagaaattt tccaatgagg aaattgccat ggctatatac acagcacttc gtcgaacagt 120
 gccccctgcc gtccctgggg tcactttcct gtctggaggg cagagtg 167

<210> 213
 <211> 257
 <212> nucleic acid
 <213> Zea mays

<400> 213
 ctcgagccga atcggtcga ggtattagtt agataaccgt gctagtgtt attgattgtc 60
 aagtcccact gttcttgctc taaatctgtg tctgttgtt tgcagatgag ctcacaaaga 120
 atgctgccta catcggcacc cctggcaagg gtatccttgc tgctgatgag tcaactggca 180
 ccagtggcaa gcgcctttcc agcatcaatg tcgagtacgt ggaggagaaac cggcgggctc 240
 tccgtgagct cctgttc 257

<210> 214
 <211> 273
 <212> nucleic acid
 <213> Zea mays

<400> 214
 gggtgacaag ggtttggttc cattgcctgg atccaacaat gaatcatggt gccaaagtct 60
 tgatggtttg gcttcaagggt gtgctgagta ctataagcag ggggcgcgct tcgcaaagtg 120
 gaggactggt gtttagcatcc cttgtggtcc atctgcatta gcagtcaagg aagcagcatg 180
 gggacttgct cgatatgctg ctattgctca ggataatggt ttagtgccaa ttgtggagcc 240
 agagattcct cttgatggag accatgggat cga 273

<210> 215
 <211> 255
 <212> nucleic acid
 <213> Zea mays

<400> 215
 gggtgacaag ggtttggttc cattgcctgg atccaacaat gaatcatggt gccaaagtct 60

tccagtacat cagcgggtgtg atcctcttcg aggagaccct ctaccagaag accaaggatg 240
gcaagccttt tgcgatgtc ctcaaggagg gaggcgt 277

<210> 222
<211> 203
<212> nucleic acid
<213> Zea mays

<400> 222

ggatgatggg tatctttata tttgtatgtt aattagtctc tttgctgtta aatttcgtgt 60
aagttgggtcc tgccgatgga gaatcgagca gtcctctttt tttgttctat caactatgct 120
gtaattctgg ctatgtatcg gcaaaaacaa ttctatatgc tgagttggag tcggcaaaaa 180
ttcatatatg ctgagttgga gac 203

<210> 223
<211> 158
<212> nucleic acid
<213> Zea mays

<400> 223

ccacctcgcc gcgatctccg tagcctccgt cgcgtcgagc atcgatcatg tcggcctact 60
gcggaaagta caaggatgag ctcatcaagg attgctgcct acattggcac ccctggcaag 120
ggtatccttg ctgctgatga gtccactggc accattgg 158

<210> 224
<211> 93
<212> nucleic acid
<213> Zea mays

<400> 224

cgaccttggc aagcgttgcg ccaagtacta cgaggcaggt gcccgctttg ccaagtggcg 60
cgctgttctc aagattggcc ctaatgagcc atc 93

<210> 225
<211> 257
<212> nucleic acid
<213> Zea mays

<400> 225

gaacaatcca gtgtgcctat cagtgtccac tatgaccacg gcattttccaa gtcagacttg 60
 cttcaagctc ttgaagcggg atttgattca gtcatgggtg atgggttctca tctaaacttta 120
 ggggataaca tcttatacac aaagagcata tcttccttgg ctcatgcaaa aggtttactt 180
 gtggaagctg agttgggtag gctctcaggc tctgaagatg gcatgaccgt tgaagaatat 240
 gaagcaagat ttactga 257

<210> 226
 <211> 268
 <212> nucleic acid
 <213> Zea mays

<400> 226

ctaaagcaag gtggagtcac actggtagca tgttgcattg ctgctgcaga acaatccagt 60
 gtgcctatca gtgtccacta tgaccacggc atttccaagt cagacttgct tcaagctctt 120
 gaagcgggat ttgattcagt catgggtggat ggttctcatc taactttagg ggataacatc 180
 ttatacacia agagcgtatc ttccttggct catgcaaaaag gtttacttgt ggaagctgag 240
 ttgggtaggc tctcaggctc tgaagatg 268

<210> 227
 <211> 136
 <212> nucleic acid
 <213> Zea mays

<400> 227

cgctgtcctt ctccttcggc cgcgcgctgc agcagagcac cctcaagaag tgggtcggca 60
 agaaggagaa cgtcgccgcc gcgcatgcca ccttcgtcat ccgctgcaag gccaaactccg 120
 aggccgcgct gggcaa 136

<210> 228
 <211> 207
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (87)
 <223>

<400> 228
 ggtggacaag ggccttgtcc cgctcgccgg ctccaacaac gagtcgtggt gccaggggct 60
 ggacggcctg gcgtcccgcg aggcgcncta ctaccaacaa ggcgcgccgg tccgccaagt 120
 gccccaccgt ggcaagaatc cttaacggcc ctccaagt ttccgtcaag gaggccccctt 180
 ggggcttgga acgttaggcc gcctttt 207

<210> 229
 <211> 482
 <212> nucleic acid
 <213> Zea mays
 <220>
 <221> unsure
 <222> (7)...(10), (27)...(28), (30)...(31)
 <223> unsure at all n locations

<400> 229
 gtggggnnnn cgcacccac ctaaacnnn natctctctc cctctccgaa taaccggctg 60
 gacccacgcy tccgggcact tgatcagtca aatgcaacat gtggcaagag gttatcatct 120
 attggcttgc ggaacacata attgaaccgt caggcttaca ggcagctatt gctgacaact 180
 gctgttcttg gtgaatatat cactggcgct attcttttgc aacgagaccc tttatcaatc 240
 aactacagac ggcaagaagc ttgttgactg cttgaaagat cagaatatca tgcttggcat 300
 caatgttgac aagggttga ttccattgcc tggatccaac aatgaatcat ggtaccaaag 360
 tcttgatggc ttggcttcaa ggcgtgctga ctactataag caggtggcgc gcttcgcata 420
 gcgcagtact gttgctagca tccatcgtag tgcattgca ttatcagtca atgaatcatc 480
 at 482

<210> 230
 <211> 414
 <212> nucleic acid
 <213> Zea mays

<400> 230
 gtaaacctca ttatatcatt gcaaaggag gaatcacttc atctgatatt gctacaaagg 60
 cgctggaagc taaacgtgcc aaagtcattg gacaagcatt agctgggtga cccttgtggc 120
 agcttgggtcc tgagagtaga tttcctgggg tcccttacat tggttttctt ggtaatgttg 180

gtgataacag tgctcttgct aaagtgggtga aaagttgggc ttcccatct agaagttcta 240
 caaaagaaat tcttcttgat gcggagaatg gcggttatgc tgttggtgct ttcaatgtgt 300
 ataaccttga gggaattgaa gctgttggtg cagcagcaga ggctgaaaag agtcctgcta 360
 ttcttcagat tcatccgagt gctctaaagc aaggtggagt cccactggta gcat 414

<210> 231
 <211> 355
 <212> nucleic acid
 <213> Zea mays

<400> 231

attcactata accttgatac ctggtagata gccatgcttt atgcatatcg tattgcagat 60
 gagctcatca agaattgctga ctacattggc acccctgaca agggatctct tgctgctgat 120
 gagtccactg gcaccattgg caagcgcctt tccagcatca atgtctagaa cggtgacgag 180
 aaccgcgctg cctccgctga gctcctattc tgctgccctg gtgctctcca gtacatcagc 240
 ggtgtgatcc tcttcgagga gaccctgtac cagaagacca aggatggcta gccttctgtc 300
 gatgtcctga acgagggagg cgttctccat agcatcaagg ttgacaaggg cacca 355

<210> 232
 <211> 154
 <212> nucleic acid
 <213> Zea mays

<400> 232

gtcctgccga tggagaatcg agcagccctt tttttttggt ctatcaacta tgctgtaatg 60
 ctggctatgt atcggaacaa acaattctat atgctgagtt ggagtcggca aaaattcata 120
 tatgctgagt tggagacagc aacttgtttg gatc 154

<210> 233
 <211> 146
 <212> nucleic acid
 <213> Zea mays

<400> 233

ggaggccatc ttcgtcgacc cggccctccg cgggaagtac tgcgtctgct tcgaccgct 60
 ggatggctcc tccaacatcg actgtggtgt ctcaatcgga acggtgtgtc actgtcactc 120

cgggtggtgt ttcaaaccctt cttacc 146

<210> 234
 <211> 184
 <212> nucleic acid
 <213> Zea mays

<400> 234

agcatccgaa gaagtactca gtcgctacg tgtgctcact ggtggctgat ttccaccgga 60
 cgctcatata tggcgggggc gcatgaaccc aagggaacat ctgcggctgg tttatgaggc 120
 gaacctcttc agtttccttg ctgaacaggc tgggggtaga gggtcagatg gcaagatcag 180
 aatc 184

<210> 235
 <211> 183
 <212> nucleic acid
 <213> Zea mays

<400> 235

agcgccagca agcgagcag accaatctcc aacctcacgg gcgttcaggg cgccgtcaat 60
 gtgcagggcg aggaccagaa gccgctcgat gtcgtctcca acgaggtgtt ctccaactgc 120
 ctcaagtoga gggggcgcac cggcgtgata cgctcggcgg cggaggacgt gcccgtagcg 180
 gtg 183

<210> 236
 <211> 342
 <212> nucleic acid
 <213> Zea mays

<400> 236

tcagctcgag cttctgctcg aggtcagaga caatgacaac gtgaccttag aggatgtgct 60
 gcagcctgga acaaacatgc ttgctgctgg ctactgcatg tacggaagtt catgtagact 120
 gtgctgagca ctgggaccac atcaatgagt tcaçtctcga tccttccctt ggagagttca 180
 ttttgactca tccagatatc aagggttaatg ataaaaacaa ctcgacactt cttttctatc 240
 ctggctgata gatacccctg gttagcacta taaaacgaaa tgggtactact tgagtttggg 300
 tatcacgtgt tgtgcgtgct tcgttctttt cttgtgcaga ta 342

acgtgtgcca gccggggagc aacctgctgg ccgccg

276

<210> 240
<211> 269
<212> nucleic acid
<213> Zea mays

<400> 240

tgcagatccc caaggcgggc aagatctacg ctttcaacga gggcaactac gcgctctggg 60

acgacaagct gaagctgtac atggacagcc tcaaggagcc cggcgactcg gggaagccct 120

actccgcgcg gtacataggc agcctcgctg gggacttcca ccgcactctt ctctacggag 180

ggatctacgg gtaccccagg gacaagaaga gcaagaacgg caagctgcgg cttctctacg 240

agtgcgcccc catgagcttc atcgctcgag 269

<210> 241
<211> 292
<212> nucleic acid
<213> Zea mays

<400> 241

ctcggggaag ccctactcgc cgcggtacat aggcagcctc gtcggcgact tccaccgcac 60

tcttctctac ggagggatct acgggtaccc cagggacaag aagagcaaga acggcaagct 120

gcggcttctc tacgagtgcg ccccatgag cttcatcgctg agcaggccgg tggcaagggc 180

tctgacggcc accagagaat tcttgacatc acacctacag agatccacca aagagtgcct 240

ctgtacattg ggagcgtgga ggaagtggac aaggtggaga attcctggct tg 292

<210> 242
<211> 277
<212> nucleic acid
<213> Zea mays

<400> 242

cgcgctctgg gacgacaaac tgaagctgta catggacagc ctcaaggagc ccggcgactc 60

ggggaagccc tactccgcgc ggtacatcgc cagcctcgtc ggcgacttcc accgcactct 120

tctctacgga gggatctacg ggtaccccag ggacaagaag agcaagaacg gcaagctgcg 180

gcttctctac gagtgcgccc ccatgagctt catcgctcgag caggccgggtg gcaagggctc 240

tgacggccac cagagaattc ttgacatcac acctaca

277

<210> 243
 <211> 268
 <212> nucleic acid
 <213> Zea mays

<400> 243

cggttaccca gggacaagaa gagcaagaac ggcaagctgc ggctttctcta cgagtgcgcc 60

cccatgagct tcacgtcga gcaggccggt ggcaagggct ctgacggcca ccagagaatt 120

cttgacatca cacctacaga gatccaccaa agagtgcctc tgtacattgg cagcgtggag 180

gaagtggaca aggtggagaa attcctggct tgaatgccag agctctctca tcagatggac 240

tcccgaagac atcaagttta gggagggga 268

<210> 244
 <211> 324
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (103)
 <223>

<400> 244

gagaccgga gagtgtacgt gccaccagga gcagcagcag caatggccgc cgccgccacc 60

acctctcat cctcccactt gctcctctc tcccgccagc agngggcctc cctacgatgc 120

cgctctctc tctcggcca gcccagaagg cccggcaggg tcacggccca ggcgcccggc 180

gctaaggacg tgcggtgcat ggcggccgtg gacactactg cggcgtccac ggcggcggcg 240

gagacgagcc ccaagtcgag cagctacgag atcgtgacgc tcacgacgtg gctgctgcag 300

caggagcga ccggcgcgat cgac 324

<210> 245
 <211> 267
 <212> nucleic acid
 <213> Zea mays

<400> 245

gagagtgtac gtgccaccag cagcagcagc agcagcaatg gccgccgccg ccgccacctc 60
 ctcatectcc cacctgctcc tcctctcccg ccagcaggcg gcctccctac gatgccgcct 120
 ctccttcttc ggccagccca gaaggcccg cagggtcacg gcccaggcg cggccgctaa 180
 ggacgtgcgg tgcattggcg ccgtggacac tactgcggcg tccacggcg cggcggagac 240
 gagccccaag tcgagcagct acgagat 267

<210> 246
 <211> 310
 <212> nucleic acid
 <213> Zea mays

<400> 246

gtgtacgtgc cacaagcagc agcagcagca gcaatggccg ccgccgccgc cacctcctca 60
 tcctcccacc tgctcctcct ctcccgccag caggcggcct ccctacgatg ccgcctctcc 120
 ttctcgggcc agcccagaag gcccggcagg gtcacggccc aggcgccggc cgctaaggac 180
 gtgcggtgca tggcggccgt ggacactact gcggcggtcca cggcggcgga ggagacgagc 240
 cccaagtcca gcagctacga gatcgtgacg ctacgacgt ggctgctgca gcaagagcgg 300
 accggcgcca 310

<210> 247
 <211> 255
 <212> nucleic acid
 <213> Zea mays

<400> 247

ccggaacccc gagtcccgcg ggcacttcac atccttctct ccacatcgt cctcggtgc 60
 aagtctgtcg cctccgccgt caacaaggcc gggctcgccc agctgatcgg gctcgccggc 120
 gagaccaacg tgcagggaga ggagcagaag aagctggacg tcctgtccaa cgaggtgttc 180
 gtcaaggccc tcgtcagcag cggtcgcacc tccgtccttg tgcgcgagga ggcgaggaag 240
 caacgttcgt ggacc 255

<210> 248
 <211> 313
 <212> nucleic acid
 <213> Zea mays

<400> 248
 gggatgtgcc tacagccaaa ttcgtgaaga aatgcaagta tcctgaggat gggttcaccgc 60
 ctagatcctt gagatatatc ggaagtatgg ttgctgatgt ccatcgcacc ttactatacg 120
 ggggcatatt tttgtaccca gcagaccaga agagtccaaa cgggaaacta cgcgttctgt 180
 atgaagtctt cccgatgtca ttctgatgg aacaagctgg aggccaggct ttcacaggca 240
 aacaacgggc ccttgaactt gctcccgcta aacttcacga cagatcccca gtgttcctcg 300
 ggagctacga tga 313

<210> 249
 <211> 272
 <212> nucleic acid
 <213> Zea mays

<400> 249
 cttgtgggtcc ttgtgaatgg tttgcagtat ggttgctgat gtccatcgca cttactata 60
 cgggggcata tttttgtacc cagcagacca gaagagtcca aacgggaaac tacgcgttct 120
 gtatgaagtc ttcccgatgt cattcctgat ggaacaagct ggaggccagg ctttcacagg 180
 caaacaacgg gcgcttgaac ttgctcccg taaacttcac gacagatccc cagtgttcct 240
 cgggagctac gatgacgttg aggagatcaa ag 272

<210> 250
 <211> 242
 <212> nucleic acid
 <213> Zea mays

<400> 250
 caagtatcct gaggatgggt caccgcctag atccttgaga tatatcgga gtatgggttc 60
 tgatgtccat cgcaccttac tatacggggg catatTTTTTg taccagcag accagaagag 120
 tccaaacggg aaactacgcy ttctgtatga agtcttcccg atgtcattcc tgatggaaca 180
 agctggaggc caggctttca caggcaaaca acgggcgctt gaacttgctc ccgctaaact 240
 tc 242

<210> 251
 <211> 384
 <212> nucleic acid

agaagctoga tgctgtctcc aacgaggtgt tctccaactg cctcaagtcg agcgggcgca 180
 ccggcgtgat cgcctcggag gaggaggacg tgcccgtagc ggtggagcag agctactccg 240
 gcaactacat cgctgtgttc gaccctctcg atggctcctc caacatcgac gccgccgtct 300
 ccactggctc catcttcggc atctacaacc ccaacgatga gtgcctcgcc gacgtcgacg 360
 acaatgacac ccttgattcg ggtggagcan aggtgcatcg tgaacgtgtn ccaaccgggg 420
 ga 422

<210> 256
 <211> 419
 <212> nucleic acid
 <213> Zea mays

<400> 256
 ctcaagtcga gcgggcgcac cggcgtgacg gcctcggagg aggaggacgt gcccgtagcg 60
 gtggagcaga gctactccgg caactacatc gtcgtgttcg accctctcga cggctcctcc 120
 aacatcgacg ccgccgtctc cactggctcc atcttcggca tctacaaccc caacgacgag 180
 tgccctcgccg acgtcgacga caatgacacc gtgagtgcga attaatctca tctcccttac 240
 cttctttctg ttctgactgg ctcatcactg gacaattcta tctccaacac tacactacgt 300
 acgtacgcgc gcgcagcttg attcgggtgga gcagaggtgc atcgtgaacg tgtgccagcc 360
 ggggagcaac ctgctggccg ccggctactg catgtactcg agctcgggtga tcttcgtgc 419

<210> 257
 <211> 430
 <212> nucleic acid
 <213> Zea mays

<400> 257
 gaccgcgaga gtgtacgtgc caccaggagc agcagcagca atggccgccg ccgccaccac 60
 ctctctatcc tcccacttgc tctactctc ccgccagcag gcggcctccc tacgatgccg 120
 cctctccttc ctcgccagc ccagaaggcc cggcagggtc acggcccatg cgccggccgc 180
 taaggacgtg cgggtgatgg cggccgtgga cactactgcg gcgtccacgg cggcggcgga 240
 gacgagcccc aagtcgagca gctacgagat cgtgacgctc acgacgtggc tgctgcaaca 300
 ggagcggacc ggcgcgatcg acaacgagat gaccatcgtg ctggccagca tatccacggc 360

ggagctgttg cagctgcagc tgtagctgat cgtttgcatt ggtcaaagga ggaccggaag 180
 ctggccattg ttttggttgg cctaccagct cgtggtaaaa ccttcaactgc agttaagctt 240
 acaagggtacc ttctgttggtt gggccatgaa actagacatt tcaatgttgg gaagtatc 298

<210> 261
 <211> 325
 <212> nucleic acid
 <213> Zea mays

<400> 261

gcgcccctgc catggaaagg gagctcgcgt ccatgtgggt gctcagcttc gtcgtgccgc 60
 cggaccatga aacactggac ttcaagttct tgctgaagcc caaagacgct gaaacccccgt 120
 gcatcatcga ggaaggaccc acacggctcc tcaccggagg catgctagag ggtgatgtga 180
 gggttgcact gttcaagctc aatggagatg atgaggtgct cgagtttggg gtggtcaaca 240
 aggcggacct tgtatcacccg cttgaacttg ctgcaagctg gaggggtgtac aaggagaact 300
 ttcagccttc caaagttcgg gggat 325

<210> 262
 <211> 245
 <212> nucleic acid
 <213> Zea mays

<400> 262

cccacgcgtc cgagtgtgtg atgggatgac ttatgaagag ataaagaaaa tcatgcccga 60
 ggaatttgag tcacgaaaga aggacaagct aagataccgc tccccccgtg gagaatctta 120
 cctcgatgtg atacagaggc tggaacccgt catcatcgag ctagaacgcc agcgtgcacc 180
 agtggttgtc atatctcatc aggctgtact gcgagcactg tatgcatatt tcgcggaccg 240
 tcctt 245

<210> 263
 <211> 268
 <212> nucleic acid
 <213> Zea mays

<400> 263

cccacgcgtc cgcaacaaag tcctgattat gcagagcaaa cagattttga agctgggtga 60

caagatttca aagagcgatt gacctattat gaaaaggtct atgaaccggt ggaagaaggt 120
 tottacataa aaatgattga catgggttagt gggaaggggg gccaaactaaa gattaatgac 180
 ataagtgggtt acttgccctgg acggatcggtt ttcttcttgg gtaactgtca tctgacacct 240
 cgtccctatcc tgctaacaag acatgggtg 268

<210> 264
 <211> 280
 <212> nucleic acid
 <213> Zea mays

<400> 264

aaactcaacc ggagatggcg agctctggcg gaatctccga ccagctcttc gtctccgtca 60
 agttagagag cccgcacctc gcggagctcg acctcgcccc ccacctcttc ggctcccacc 120
 ctgtggctgg ctcgtgggac ccctgcaagg ccctgccttt ggagcgggcy gccaccgcy 180
 tgtgggagtt cagctgcgtc gtgccttcgc agcacgaatc gctggatttc aagtttggtt 240
 tgaagcgaaa aggtgataat cctcaatata ttattgaggg 280

<210> 265
 <211> 302
 <212> nucleic acid
 <213> Zea mays

<400> 265

cttgtcccta ggttgggtata tttgacgcaa caaacagcac aagaaagcga agatatatgc 60
 taatgaaaat ggctgaaggt aactgtaaga ttatatTTTT ggagacaata tgtaatgatc 120
 caaacataat tgaaagaaac atacggctga agatccaaca aagtccagac tatgctgaac 180
 agctagatta tgaagctgga ctggaggact tcaaggaacg tttgattaat tatgaaaagg 240
 tctacgagcc agtaggggaa ggttcttaca tcaaaatgat tgacatggta aaggggcaag 300
 at 302

<210> 266
 <211> 314
 <212> nucleic acid
 <213> Zea mays

<400> 266

ggaagaatcg gtggagactc ttctttgagt gaggccggtg agctttattc aaggaagctt 60
gcgagctttg tggagaagcg actgaaatcc gagcggactg cctctatatg gactagcaca 120
ctccagagaa caatattaac agcacatcgg atcattggat ttccaaagat acaatggcgt 180
gctcttgatg agatcaatgc tgggggtctgt gatgggatga catacgatga aataaagaaa 240
agtaaacctg aagaatatga atcacgaaga taagacaagc tgaggatatcg ttatccgaga 300
gggagatcct atct 314

<210> 267
<211> 320
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (276)
<223>

<400> 267

ctcatgtaga tgcgactaca caccatagtc gagatacaaa tgggcgtcac ggggtgtggaa 60
gagaagaggt acaaactcat ggactgagtg agtacatagg agcagctact tgggtgtgtc 120
atacatcgag tacacataac acagaagcgt ttgcccttct ctctctctcc acacgggtgtt 180
cagtgttaatt gctctggaaa agagacatgt tgaacattgt aaaggaaaaa ctaataaggg 240
actgtaaaag tggcatgcgt actgtaacgg ataagngata cagactgggg tgctcaatgc 300
ttattcagag catattcgtc 320

<210> 268
<211> 265
<212> nucleic acid
<213> Zea mays

<400> 268

gtgatgggat gacatacgat gaaataaaga aaagtaaacc tgatgaatat gaatcacgta 60
gaaaagacaa gctgaggcat cgttatccga gaggagaatc ctatcttgac gtcattcaaa 120
gactagaacc tgtgataatt gaacttgaac gacagcgtgc tccagttgta gtcatagctc 180
accaggctgt gttgagagca ctttatgcat actttgcgga caaaccgctt gaggaagtcc 240

caaattattga gataacctgta catac

265

<210> 269
<211> 253
<212> nucleic acid
<213> Zea mays

<400> 269

ggtcagttac aggtaaataa tatcagcggg tatctccctg ggaggattgt cttcatcttg 60
gtgaactctc atcttacacc acgacctatt ttgcttacca ggcattggga gagttttacat 120
aatgttagag gaagagtcgg tgggtgataca gttctaagt aaactggcga actttatgca 180
aagaaactag ccaactttat agaaaagcgg ctcaaattgt agaaaacagc aactatatgg 240
accagtaccc ttc 253

<210> 270
<211> 260
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (231)
<223>

<400> 270

gaaaagggtc acgagccagt aggggaagg tcttacatca aaatgattga catggtaaag 60
gggcaagatg gtcagttaca ggtaaataat atcagcgggt atctccctgg gaggattgtc 120
ttcttcttgg tgaactctca tcttacacca cgacctattt tgcttaccag gcatgggtgag 180
agttttacata atgttagagg aagagtcggg ggtgatacag ttctaagtga nactggcgaa 240
ctttatgcaa agaaactagc 260

<210> 271
<211> 243
<212> nucleic acid
<213> Zea mays

<400> 271

cgggtgtgga agagaagagg taaaaactca tggactgaat gaatacataa aagcagctgg 60
ttggctgttt catacagcaa gtacacataa cacagaagcc ttttcccttc tctctctctc 120

tccacacggt gttcagtgtg atttcttttg aaaaaagaca tgttgaacat tgtaaagaaa 180
 aaactaataa ggaactgtaa aaatggcatg cttactgtaa cgaataggga atacagactg 240
 ggg 243

<210> 272
 <211> 400
 <212> nucleic acid
 <213> Zea mays

<400> 272

ccgactcgta cgtcatgcaa caaaaccctt taatgatgga aagtacctcc cggttcaggt 60
 gggacctata aactgggttat tttttcgga ctacaggaag gtgtggaagt acttcacgaa 120
 gttgattgct tagcaactgg aagatatgct atcattgatg cactaagggtg gaacgttgga 180
 attatcgatg ccacatacag cacacgaata ccgaagaaca tgctgatgaa aatggctgaa 240
 ggaaaatgtc agatcatatt tctgtgaaca ctatgtaatg accaacaatgt tcttgagaga 300
 actatacaat cgaaagttca acaaagacct gactatgcat agcatacaga atatgaagct 360
 ggcgtacaag atttcaaata ccgattggcc tattatgaaa 400

<210> 273
 <211> 454
 <212> nucleic acid
 <213> Zea mays

<400> 273

gacctttaca gcagctaaac ttacaagata tctccgatgg ttaggtcatg aaacaaaaca 60
 cttcaatggt ggaaagtacc gccggctcaa gcatggaact aatcagactg ctgatttctt 120
 tcgtggagat aacagggagg gtgtggaggc acgtaacgag gtggctgcat tagcaatgga 180
 agatatgcta tcttgatgac aggaggggtg tcagggttgt attttcgatg ccacaaacag 240
 cacaagaata cggaggaaca tgctgatgaa aatggctgaa ggaaaatgta agatcatctt 300
 tttggaaaca ttatgtaatg accaagatgt tcttgagaga aatatacgat tgaaagttca 360
 acaaagtcct gattatgcag agcaaacaga ttttgaagct ggtgtacaag atttcaaaga 420
 gcgattgacc tattatgaaa aggtctatga accg 454

<210> 274
 <211> 442
 <212> nucleic acid
 <213> Zea mays

<400> 274

atggggaatg cgttggttaa actcaacgaa tggaaggagg tacttgagtg caagggtgag 60
 gtggagacag aaatgttata cccatttgac ttggcggcta gttggagagc tcatcaggag 120
 tattttcagc cttcaagggt gcgagggact cacgatgtca ctatcaaccc tgggttagaa 180
 ggcagggcca agaatggctt cgcttctggt ttgaagcttg atttagacaa gtatgtagtt 240
 ccaacaccaa acatgggctc aggtgttggt tatgcagcta gtttgactga aaatccacgc 300
 tcattattgc aaactgcgag ttccatcatac aatgatacca caaaggacat tttgcacaac 360
 tcaactaaag gcgattcata cttgaatcac tatgttaaca ctatgaagag cacaattgga 420
 gggcatgcat cgtcactgga ag 442

<210> 275
 <211> 403
 <212> nucleic acid
 <213> Zea mays

<400> 275

atgtatgcat atttcgcagt ccgtcctttg agagaagttc cagagataca gatgccacta 60
 gacaccataa tcgagataca aatgggcgctc actggtgttg aagagaagag gtacaaactc 120
 atggactgaa tgaatacata aaagcagctg gttggctggt tcatagagca agtacacata 180
 acatagaagc cttttccctt ctactctct ctccacacgg tgttcattgt aatttctttg 240
 gaaaaaagac atgttgaaca atgtaaaca acaactaata acgaactgta cgaatggcat 300
 gcttactgta acgaataacg aatacatact gggggtcacc aatgcgtagt cagaaacata 360
 ttccgtcaaa gaacatagcg aaatgctgca gaagaaacgc ccg 403

<210> 276
 <211> 300
 <212> nucleic acid
 <213> Zea mays

<400> 276

gatttattga caacaccgat cctgctggga ttgatcatca aattgctcaa ctaggacctg 60

aactggcaac tactcttgta attgtcattt ctaagagcgg aggcacacct gaaacccgca 120
atggtctact agaagtacag aaagccttca gagatgcggg gctgcaattc tcgaaacagg 180
gtgttgcaat tactcaagaa aattctctgt tggataacac tgctagaata gagggatggt 240
tagctcgggtt tcctatgttt gattgggttg gtggtaggac ttcagaaatg tctgctgtgg 300

<210> 277
<211> 208
<212> nucleic acid
<213> Zea mays

<400> 277

cgccaacccc gacgagggtc gcatgggtgg ccaactactgg ctccgcgacc cggccctcgc 60
tcccaactcc ttctccgga acaagatcga gaccgcactc gacaaaatcc tcgccttctc 120
ccaagatgtc atctctggaa agattctttc cccatctggt cgtttcactt caattctctc 180
tataggaatc ggaggggtcag ctttgggc 208

<210> 278
<211> 267
<212> nucleic acid
<213> Zea mays

<400> 278

cccacgcgtc cgataacact gccagaatag agggatgggt agctcggttt cctatgtttg 60
actgggttgg tggtaggact tcagaaatgt cagctgttgg ttacttcca gctgcattgc 120
agtgtattga tatcaaggaa atgctatttg gtgcagcttt aatggatgag gaaacccgga 180
aactgtggt taaagcaa atcagcagcat tgcttgcat atgttggtat tgggcatcgg 240
aagggatagg caaaaaggat atggttg 267

<210> 279
<211> 258
<212> nucleic acid
<213> Zea mays

<400> 279

agcttctcgc ttttttaacc acagttgtca acctaactgt cggctggaga aatggaatca 60
gagggctcgc ttatgggcct caatttggtg ctaaaccact tgcacctgat aaccctccac 120

tgaaggtaag atttattgac aacatcgatc ctgggtgggat tgatcatcaa attgctcaac 180
taggatctca actggcaact agctactctt gtaattgtca tttctaagaa cacttgaggg 240
agggggaact gctgaagc 258

<210> 280
<211> 229
<212> nucleic acid
<213> Zea mays

<400> 280

gcagaatgtg aacagggcca caactgggat tccttgaaat gttgatccag ttgacgttgc 60
acgaagcatt aaagatttgg atccagaaac cactctgggtg gtggctgtat caaagacatt 120
cacaacagct gaaacaatgt taaatgctcg aactcctaag gagtggatcg tttcttctct 180
tgggacacag gctgttgcca tacatatgat tgctgtcagc actaatctt 229

<210> 281
<211> 337
<212> nucleic acid
<213> Zea mays

<400> 281

aggttggaca gcttttatcc atctatgagc accggattgc agttcagggc ttcatatggg 60
gaattaactc atttgacca tggggagtgg acctagggaa gtcactcgct tctcaagtga 120
ggaaacagct gcatggaacc cggatggaag gaaagcctgt tgagggtttt aaccacagca 180
cttcaagttt gcttgcacga tatcttgctg tcaagccatc caccctgat gatactaccg 240
tgctgccgaa ggtgtaatta ctcagttgtt ttgacatgc caattgctga gctctgactt 300
ggcaagggtg agcataagtc tttcttcatt ttgggag 337

<210> 282
<211> 248
<212> nucleic acid
<213> Zea mays

<400> 282

gcggggctgc aattctcgaa acaggggtgtt gcaattactc aagaaaattc tctgttggat 60
aacactgcta gaatagaggg atgggttagct cggtttccta tgtttgattg ggttggtggt 120

aggacttcag aaatgtctgc tgtgggttta cttccagctg cattgcaggg tattgatatc 180
aaggaaatgc tagctgggtgc agctttaatg gatgaagaaa cccggaacac tgtgggttaaa 240
gaaaatcc 248

<210> 283
<211> 288
<212> nucleic acid
<213> Zea mays

<400> 283

gttgcaatca ctcaagaaaa ttctctgttg gataacactg ccagaataga gggatgggtta 60
gctcggtttc ctatgtttga ctgggttggg ggtaggactt cagaaatgtc agctgttggg 120
ttacttccag ctgcattgca gggatttgat atcaaggaaa tgctagtggg tgcagcttta 180
atggatgagg aaaccgggaa cactgtggta tcacattatt aataacacgg acaacttgca 240
gtgatggcat gattatctat atgtgtcatg tcaacatggt tatctttt 288

<210> 284
<211> 243
<212> nucleic acid
<213> Zea mays

<400> 284

tgatgcgggt ctgcaattct cgaaacaggg tgttgcaatc actcaagaaa attctctggt 60
ggataacact gccagaatag agggatgggt agctcggttt cctatgtttg actgggttgg 120
tggtaggact tcagaaatgt cagctgttgg ttacttcca gctgcattgc agggatttga 180
tatcaaggaa atgctagtgg gtgcagcttt aatggatgag gaaaccggga aactgtgggt 240
taa 243

<210> 285
<211> 235
<212> nucleic acid
<213> Zea mays

<400> 285

cagaaagcct tcagagatgc agggctgcaa ttctcgaaac aggggtgttg aattactcaa 60
gaaaattctc tgttggataa cactgctaga atagagggat ggtagctcg gtttcctatg 120

aactggcaac tactcttgta attgtcattt ctaagagcgg aggcacacct gaaacccgca 300
atgg 304

<210> 289
<211> 273
<212> nucleic acid
<213> Zea mays

<400> 289

ctttatgcaa atgaccggga gtctatctct gttactgtgc aagaggtaac tcctagagct 60
gttgagcac tgattgcact ttatgaacgt gctgtgggga tttatgcttc tttggtaaat 120
atcaatgcct atcatcagcc tgggtgttgag gctgggaaaa aggcagcagg agaagtattg 180
gcccttcaga aaagggttct gactgtatta aaggaggcca tctgcgagaa ccctactgag 240
ccattgactc tagatgaaat tgcagatcgc tgc 273

<210> 290
<211> 322
<212> nucleic acid
<213> Zea mays

<400> 290

ctatcatcaa cctggtgttg aggctgggaa aaaggcagca ggagaagtgt tggcccttca 60
gaaaagggtg ctgactgtat taaatgaggc aacctgcaag gacccttggtg agccattgac 120
tatagatgaa attgcagatc gctgccattg ccctgaagat attgagatga tctacaaaat 180
agtccagcac atggctgcta acgacagagc aatcatagca gaaggcagct gtggctctcc 240
tcgcagcgtt aagggtgtacc tcggtgaatg caatgtagac gaagacttgc aggccgcgta 300
ggttccgagc ctggatccgt gt 322

<210> 291
<211> 264
<212> nucleic acid
<213> Zea mays

<400> 291

atcaacctgg tgttgaggct gggaaaaagg cagcaggaga agtggtggcc cttcagaaaa 60
gggtgctgac tgtattaaat gaggcaacct gcaaggaccc ttgtgagcca ttgactatag 120

atgaaattgc agatcgctgc cattgccctg aagatattga gatgatctac aaaatagtc 180
 agcacatggc tgctaacgac agagcaatca tagcagaagg cagctgtggc tctcctcgca 240
 gcgttaaggt gtacctcggt gaat 264

<210> 292
 <211> 310
 <212> nucleic acid
 <213> Zea mays

<400> 292

cggacgcgtg gtttgagtag atatttgcaa caacttgtca tggaaatctct tggaaaagaa 60
 ttcgacctgg atggcaaccg tgtaaatcaa gggctaactg tatatggtaa caaaggaagc 120
 actgaccagc atgcttacat tcagcagctg agagaagggtg tacaaaactt ctttggttacg 180
 ttatttgagg tcttgcgtag caggcctgct ggacatgatt ggagacttga acctggagtc 240
 acgtgtgggtg actatttggt tgggatgttg cagggaaccc gttctgctct ttatgcaaat 300
 gaccgggagt 310

<210> 293
 <211> 295
 <212> nucleic acid
 <213> Zea mays

<400> 293

gttgcttttg agtagatatt tgcaacaact tgtcatggaa tctcttggga aagaatttga 60
 tctggatggc aaccgggtaa atcaagggt atctgtatat ggaaacaaag gaagtactga 120
 ccagcacgct tacattcagc agctgagaga aggtgtacac aacttctttg ttacttttat 180
 cgaggctctg cgtgacaggc ctgctgggtca tgattgggag cttgaacctg gagtcacatg 240
 tggtgactat ttgtttggga tggtgcaggg aacacgttct gctctttatg caaat 295

<210> 294
 <211> 293
 <212> nucleic acid
 <213> Zea mays

<400> 294

acaaaggaag cactgaccag cacgcttaca ttcagcagct gagagaagggt gtacacaact 60

tctttgttac ttttatcgag gtcttgctg acaggcctgc tggatcatgat tgggagcttg 120
aacctggagt cacatgtggt gactatttgt ttaggatggt gcagggaaca cgttctgctc 180
tttatgcaaa tgaccgtgaa tctatctctg ttactgtgca agaggtaact cctagagctg 240
ttggagcact gggtgcactt tatgaacgtg ctgtggggct ttatgcttct ttg 293

<210> 295
<211> 281
<212> nucleic acid
<213> Zea mays

<400> 295

gggtgtacaaa acttctttgt tacgtttatt gaggtcttgc gtgacaggcc tgctggacat 60
gattggggagc ttgaacctgg agtcacgtgt ggtgactatt tgtttgggat gttgcaggga 120
accggttctg ctctttatgc aaatgaccgg gagtctatct ctgttactgt gcaagaggta 180
actcctagag ctggtggagc actgattgca ctttatgaac gtgctgtggg gatttatgct 240
tctttggtaa atatcaatgc ctatcatcag cctgggtgtg a 281

<210> 296
<211> 263
<212> nucleic acid
<213> Zea mays

<400> 296

ccggaacact gtgggttaaag aaaatccagc agcattgctt gcattatggt ggtattgggc 60
atcagaaggg ataggcaata aggatatggt tgtacttcct tacaaggata gtttgttgc 120
tttgagtaga tatttgcaac aacttgtcat ggaatctctt gggaaagaat ttgatctgga 180
tggcaaccgg gtaaatacaag ggctatctgt atatggaaac aaaggaagca ctgaccagca 240
cgcttacatt cagcagctga gag 263

<210> 297
<211> 300
<212> nucleic acid
<213> Zea mays

<400> 297

cggacgcgtg gtgctagctg gtgcagcttt aatggatgag gaaacccgga acactgtggt 60

taaagaaaat ccagcagcat tgcttgcat atgttgctat tgggcatcag aagggatagg 120
 caataaggat atgggtgtac ttccttacia ggatagtttg ttgcttttga gtagatattt 180
 gcaacaactt gtcatggaat ctcttgggaa agaatttgat ctggatggca accgggtaaa 240
 tcaagggcta tctgtatatg gaaacaaagg aagcactgac cagcacgctt acattcagca 300

<210> 298
 <211> 313
 <212> nucleic acid
 <213> Zea mays

<400> 298

cccacgcgtc cgcccacgcg tccgggggtat tgatatcaag gaaatgctag ctggtgcagc 60
 tttaatggat gaagaaaccc ggaacactgt ggtaaagaa aatccagcag cattgcttgc 120
 attatgttgg tattgggcat cagaagggat aggcaataag gatatggttg tacttcotta 180
 caaggatagt ttgttgcttt tgagtagata ttgcaacaa cttgtcatgg aatctcttgg 240
 gaaagaattt gatctggatg gcaaccgggt aaatcaaggg ctatctgtat atggaaacaa 300
 aggaagtact gac 313

<210> 299
 <211> 298
 <212> nucleic acid
 <213> Zea mays

<400> 299

gatagtttgt tacttttgag tagatatttg cctatccctt ccgatgccca ataccagcag 60
 cattgcttgc attatgttgg tattgggcat cggaagggat aggcaaaaag gatatggttg 120
 tgcttcotta taaggatagt ttgttacttt tgagtagata ttgcaacaa cttgtcatgg 180
 gatctcttgg aaaagaattc gacctggatg gcaaccgtgt taaacaaggg ctaactgtat 240
 atggtaacaa aggaagcact gaccagcatg cttacattca gcagctgaga gaaggtgt 298

<210> 300
 <211> 274
 <212> nucleic acid
 <213> Zea mays

<400> 300

gaggtcttgc gtgacaggcc tgctgggtcat gattggggagc ttgaacctgg agtcacgtgt 60
 ggtgactatt tgtttgggat gttgcaggga acccggttctg ctctttatgc aaatgaccgg 120
 gagtctatct ctgttacgtg caagaggtaa ctccatagagc tgttggagca ctgatttcac 180
 tttatgaacg tgctgtgggg atttatgctt ctttggtaaa tatcaatgcc tatcatcagc 240
 ctggtgttga ggctgggaaa aaggcagcag gaga 274

<210> 301
 <211> 284
 <212> nucleic acid
 <213> Zea mays

<400> 301
 cagctgcatt gcagggtatt gatatcaagg aaatgctagc tgggtgcagct ttaatggatg 60
 aggaaacccg gaacactgtg gttaaagaaa atccagcagc attgcttgca ttatgttggg 120
 attgggcata agaaggata ggcaataagg atatggttgt acttccttac aaggatagtt 180
 tgttgctttt gagtagatat ttgcaacaac ttgtcatgga atctcttggg aaagaatttg 240
 atctggatgg caaccgggta aatcaaggct atctgtatat ggaa 284

<210> 302
 <211> 306
 <212> nucleic acid
 <213> Zea mays

<400> 302
 cggacgcgtg gtgctagctg gtgcagcttt aatggatgag gaaacccgga acactgtggt 60
 taaagaaaat ccagcagcat tgcttgcatt atactggtat tgggcatcag aagggatagg 120
 caataaggat atggttgtac ttcccttaca ggatagtttg ttgcttttga gtagatattt 180
 gcaacaactt gtcattggaat ctcttgggaa agaatttgat ctggatggca accgggtaaa 240
 tcaagggcta tctgtatatg gaaacaaagg aagcactgac cagcacgctt acattcagca 300
 gctgag 306

<210> 303
 <211> 271
 <212> nucleic acid
 <213> Zea mays

<400> 303
 cccacgcgtc cgccccacgcg tccgccccacg cgtccgcgag gtcttgcggtg acaggcctgc 60
 tgggtcatgaa tgggagccttg aacctggagt cacatgtggt gactatattgt ttgggatggt 120
 gcagggaaca cgttctgctc tttatgcaaa tgaccgtgaa tctatctctg ttactgtgca 180
 agaggtaact cctagagctg ttggagcact ggttgcactt tatgaacgtg ctgtggggct 240
 ttatgcttct ttggtaaata tcaatgccta t 271

<210> 304
 <211> 228
 <212> nucleic acid
 <213> Zea mays

<400> 304
 cggacgcgtg ggggtgtaca caacttcttt gttacgttta ttgaggtctt gcgtgacagg 60
 cctgctgggtc atgattggga gcttgaacct ggagtcacgt gtggtgacta tttgtttggg 120
 atgttgcagg gaaccgcgtt tgctctttat gcaaatgacc gggagtctat ctctgttact 180
 gtgcaagagg taactcctag agctgttgga gcaactgattg cactttat 228

<210> 305
 <211> 275
 <212> nucleic acid
 <213> Zea mays

<400> 305
 tgggtgtacac aacttctttg ttacttttat cgaggtcttg cgtgacaggc ctgctgggtca 60
 tgattgggag cttgaacctg gagtcacatg tgggtgactat ttgtttggga tgttgcaggg 120
 aacacgttct gctctttatg caaatgaccg tgaatctatc tctgttactg tgcaagaggt 180
 aactcctaga gctgttgagg cactggttgc actttatgaa cgtgctgtgg ggctttatgc 240
 ttcttggtaa atatcaatgc tatcatcaac tgggtg 275

<210> 306
 <211> 203
 <212> nucleic acid
 <213> Zea mays

<400> 306

tgttgtactt ccttacaagg atagtttggt gcttttgagt agatatttgc aacaacttgt 60
 catggaatct cttgggaaag aatttgatct ggatggcaac cgggtaaatc aagggtatc 120
 tgtatatgga aacaaaggaa gcactgacca gcacgcttac attcagcagc tgagagaagg 180
 tgacacaact tctttgttac ttt 203

<210> 307
 <211> 285
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (151)
 <223>

<400> 307

gttgtcaggg tattgatatc aaggaaatgc tagctggtgc agctttaatg gatgaagaaa 60
 cccggaacac tgtgggttaa gaaaatccag cagcattgct tgcattatgt tggatttggg 120
 catcagaagg gataggcaat aaggatatgg ntgtacttcc ttacaaggat agtttggtgc 180
 ttttgagtag atatttgcaa caacttgtca tggaatctct tgggaagaat tgatctggat 240
 gcaaccggta aatcaaggct atctgatatg aaacaaagaa gactg 285

<210> 308
 <211> 267
 <212> nucleic acid
 <213> Zea mays

<400> 308

tatcttgctg tcaagccatc caccocgtat gatactaccg tgctgccgaa gtgtaattac 60
 tcagttgttt ttgacatgcc aattgctgag ttctgacttg gcaaggttga gcataagtct 120
 ttcttcattt tgggagttat cacagagcca gtttggcagt gctgtagttt tggttttacc 180
 tactctttgt agaagaaaag tgaagagtgg atattatgga acaaaatata tacctacggc 240
 agcacgcagc atgatgaaac atattta 267

<210> 309
 <211> 240
 <212> nucleic acid

<213> Zea mays

<400> 309

gtctcccccg accggcgatc gctatcgact tgtagcggaa gccatggcgt cggcagcgct 60
aatctgcggc acggagcagt ggaaggccct ccaggcgcac gtcggcgcca ttcagaagac 120
gcacctgcgc gacctgatgg ccgacgccga ccgatgcaag gcaatgacgg ctgagtatga 180
agggatcttt ctggattact cgagacagca ggcgactggg gaaacatgga gaagccctta 240

<210> 310

<211> 292

<212> nucleic acid

<213> Zea mays

<400> 310

caaaatccgg aggaactccc aggaggcgaa aagcagatcc gtctcccccg agccccgacc 60
ggcgatcgct atcgacttgt agcggaagcc atggcgtcgg cagcgctaata ctgcggcacg 120
gagcagtgga aggccctcca ggcgcacgtc ggcgcgattc agaagacgca cctgcgcgac 180
ctgatggccg acgccgaccg atgcaaggca atgacggctg agtatgaagg gatctttctg 240
gattactcga gacagcaggc gactggtgaa acatggagaa gctcttaaata tg 292

<210> 311

<211> 320

<212> nucleic acid

<213> Zea mays

<400> 311

ggcaagcaaa cgagcggcgg gacggctagc ccgcaatata aaatccggag gaactcccag 60
gaggcgaaaa gcagatccgt ctcccccgag ccccgaccgg cgatcgctat cgactttag 120
cggaagccat ggcgtcggca gcgctaatact gcggcacgga gcagtgggaag gccctccagg 180
cgcacgtcgg cgcgattcag aagacgcacc tgcgcgacct gatggccgac gccgaccgat 240
gcaaggcaat gacggctgag tatgaaggga tctttctgga ttactcgaga cagcaggcga 300
ctggtgaaac catggagaag 320

<210> 312

<211> 278

<212> nucleic acid

<213> Zea mays

<400> 312

caccgtcttc cggccgtcca ccgtttccag cacacagggg aaaggcaagc aaacgagcgt 60

ggggacggct agcccgcaat acaaaatccg gaggaactct caggaggcga aaagcagatc 120

tgtctcccc gaccggcgat cgctatcgac ttgtagcgga agccatggcg tcggcagcgc 180

taatctgcgg cacggagcag tggaaggcac tccaggcgca cgtcggcgcg attcagaaga 240

cgcaactgcg cgacctgatg gccgacgccg accgatgc 278

<210> 313

<211> 105

<212> nucleic acid

<213> Zea mays

<400> 313

caaaatccgg aggaactccc aggaggcgaa aagcagatcc gtctcccccg agccccgacc 60

ggcgatcgct atcgacttgt agcggaagcc atggcgtcgg cagcg 105

<210> 314

<211> 267

<212> nucleic acid

<213> Zea mays

<400> 314

accgatcaa gctgtgggag cgctacgtcg agtgggtcta ccagcacaag gagctcggca 60

tcttcgtcga cgtcagccgg atggggttca cggaggagtt cctgcggcag atggagccgc 120

ggatgcagca ggccttcgtc gacatgcggg agctcgagaa gggcgccatc gccaaacccg 180

acgagggtcg catggtgggc cactactggc tccgcgaccc ggccctcgct cccaactcct 240

tcttcggaa caagatcgag accgcac 267

<210> 315

<211> 325

<212> nucleic acid

<213> Zea mays

<400> 315

tgccatatto tcaggcaatt gagaagttgg caccacatat acagcagctt agcatggaga 60

<210> 318
 <211> 334
 <212> nucleic acid
 <213> Zea mays

 <400> 318

 ctcatgatga gcttatgtcc aatttccttg cccaacctga tgctcttgct tatggaaaga 60
 ctctgaaca gttgcacagt gagaaagttc cagataatct tatccctcat aagactttta 120
 agggcaaccg gccatcacta agtttgcttc tgcctacact atctgcatat gaggttggac 180
 agcttttatc catctatgag caccggattg cagttcaggg cttcatatgg ggaattaact 240
 catttgacca ctagggagtg gagctaggga agtcactcgc ttctcaagtg aggaaacagc 300
 tgcatggaac ccggatggaa ggacacctgt tgag 334

<210> 319
 <211> 279
 <212> nucleic acid
 <213> Zea mays

 <400> 319

 ggtgaacctg gaactaatgg ccagcacagc ttctatcaat taatccatca gggaagggtt 60
 atcccttgcg actttattgg tgttgtaaa agtcagcagc ctgtttactt gaaaggggaa 120
 actgtgagta atcatgatga gcttatgtcc aatttccttg cccaacctga tgctcttgct 180
 tatggaaaga ctctgaaca gttgcacagt gagaaagttc cagaaaatct tatccctcat 240
 aagactttta agggcaaccg gccatcacta agtttgctt 279

<210> 320
 <211> 274
 <212> nucleic acid
 <213> Zea mays

 <400> 320

 tgcaaagtgt gatccagttg acgttgacag aagcattaaa gatttggatc cagaaaccac 60
 tctggtggtg gttgtatcaa agacattcac aacagcggaa acaatgttaa atgctcgaac 120
 tottaaggag tggatcggtt cttctcttgg gccacaggct gttgccaaac atatgattgc 180
 tgtcagcact aatottaagc ttgtgaagga gtttggaaatt gacccaaaca atgcttttgc 240
 cttttgggac tgggttggtg gccgttatag tggt 274

The first of these is the fact that the
 \mathcal{H}^1 norm is not a norm on the space of
 functions of bounded variation. This is
 because the norm is not positive definite.
 For example, if f is a function of bounded
 variation, then $-f$ is also a function of
 bounded variation, and $\|f\|_{\mathcal{H}^1} = \|-f\|_{\mathcal{H}^1}$.
 This means that the norm is not a norm
 in the usual sense.

<400> 321

<210>	322
<211>	269
<212>	nucleic acid
<213>	Zea mays

<400> 322

<210>	323
<211>	299
<212>	nucleic acid
<213>	Zea mays

<400> 323

117

ctgttggagc actggttgca ctttatgaac gtgctgtggg gctttatgct tctttggtaa 360
 atatcaatgc ctatcatcaa cctggtgttg aggctgggaa aaaggcagca ggagaagtgt 420

<210> 333
 <211> 355
 <212> nucleic acid
 <213> Zea mays

<400> 333

agttcttgcg gtcaagcaat caaccccgta tgatacaacc gtgctgccga aggtgtaatt 60
 acccagttgt ttttgacatg ccaattgctg agttctgact tggcaagggt gagcataagt 120
 ctttcttcat ttgggagtta tcacagagcc agtttggcag tgctgtagtt ttggttttac 180
 ctactctttg tagaagaaaa gtgaagagtg gatattatgg aacaaaatat atacctacgg 240
 cagcacgcag catgatgaaa catatttaaa aaatttgggt gctctaccac atgcccgtagg 300
 aataaaacgg atgtaaactc agtgcaaaaa aaaaaaaaaa aaaaaaaaaac aaaaa 355

<210> 334
 <211> 376
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (351)
 <223>

<400> 334

aacgagcggc gggacggcta gcccgcata caaaatccgg aggaactccc aggaggcgaa 60
 aagcagatcc gtctcccccg agccccgacc ggcgatcgct atcgacttgt agcggaagcc 120
 atggcgctcg cagcgctaata ctgcggcacg gagcagtgga aggccctcca ggcgcacgtc 180
 ggcgcgattc agaagacgca cctgcgcgac ctgatggccg acgccgaccg atgcaaggca 240
 atgacggctg agtatgaagg gatctttctg gattactcga gacagcaggc gactggtgaa 300
 accctggaga agctccttaa atgggctgac gctgcgaagc tcaaggagaa ngatgagaag 360
 atgtttaaag gtgaaa 376

<210> 335

aaaatcaagc agttttcaga gactttttaga agtggatcat gggttggagc aactggaaaa 60
 ccgttgacaa atgttggtgc agttggaata ggtggttagct ttcttggccc tctatttgtg 120
 catactgcac tccagaccga tccagaagca gcagaatgtg caaaaggccg gcaactgaga 180
 ttccttgcaa atgttgatcc agttgacgtt gcacgaagca ttaaagattt ggatccagaa 240
 accactctgg tgggtggttg atcaaagaca ttcacaacag ctgaaacaat gttaaagtct 300
 cgaactotta aggagtggat cgttttcttct cttggggccac aggctgttgc caaacatatg 360
 attgctgtca gcactaatct taagcttgtg aaggagtttg gaattgaccc aaacaatgc 419

<210> 338
 <211> 460
 <212> nucleic acid
 <213> Zea mays

<400> 338

togatatgct gcaacggcag gaccaggact gggactcgcg ggccgacaca cgctctaca 60
 tttcttggtt atacagctag ggcaatattg ccatattctc aggcaattga gaagttggca 120
 ccacatatac agcagcttag catggagagt aacgggaagg gtgtttccat tgatggcgcc 180
 caactttcct ttgagacagg tgaaattgat tttggtgaac ctggaactaa tggccagcac 240
 agcttctatc aattaatcca tcagggaagg gttatccctt gcgactttat tgggtgttgtt 300
 aaaagtcagc agcctgttta cttgaaaggg gaaactgtga gtaatcatga tgagcttatg 360
 tccaatttct ttgcccaacc tgatgctctt gcttatggaa agactcctga acagttgcac 420
 agtgagaaag ttccagaaaa tcttatccct cataagactt 460

<210> 339
 <211> 323
 <212> nucleic acid
 <213> Zea mays

<400> 339

gcgaagctca aggagaagat tgagaagatg tttaaagggtg aaaagataaa tagcacagag 60
 aacaggtcag tgcttcatgt agctctgagg gctccaagag atgcagtcac aaacagtgat 120
 ggggtgaatg tgggtccctga ggttcggagt gttaaagata aaatcaagca gttttcagag 180
 acttttagaa gtggatcatg gggtggagca actggaaaac cgttgacaaa tgttgtgtcg 240

gttggaatag gtggtagctt tcttgccct ctatttgtgc atactgcact ccagaccgat 300
ccagaagcag cagaatgtgc aaa 323

<210> 340
<211> 422
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (27), (32), (34), (47), (50), (65), (80), (94), (371), (389),
(391), (394)...(395), (399)
<223> unsure at all n locations

<400> 340

ccaaaactga gtctcattac aaatgtngat cnanttgacg ttgcacnaan cattaaagat 60
ttggnntccag aaaccacccn ggtgggtggtt gtancaaaga cattcacaac agcggaaaaca 120
atgttaaagt ctogaactct taaggagtgg atcgtttctt ctcttgggcc acaggctgtt 180
gccaaacata tgattgctgt cagcactaat cttaagcttg tgaaggagt ttgaattgac 240
ccaaacaatg cttttgcctt ttgggactgg gttggcggcc gttatagtgt ttgcagtgt 300
gttggcggtt tgccattact cttcagtatg gctttccaat tgtccagaaa tttttggagg 360
gaacttccag ncattgacaa acaacttcna ntcnncctnc attttgagaa aaatatacct 420
gt 422

<210> 341
<211> 254
<212> nucleic acid
<213> Zea mays

<400> 341

gccgcgcacc cctggcacga cctcgagatc ggtcctgaag ctccggccgt cttcaacgtc 60
gtcgtggaga tcaccaaggg gagcaaggtg aagtacgagc tggacaagaa gacggggctc 120
atcaaggtgg accggatcct ctactcgtcc gtcgtctacc ctcacaacta cggttcgtg 180
ccccggacgc tctgcgagga caacgacccc atggacgtcc tcgtgctcat gcaggaaccc 240
gtccttcccc gcgc 254

<210> 342

<211> 205
 <212> nucleic acid
 <213> Zea mays

 <400> 342

 tttgtttcct gctctggcca aattccagac aagaagaacg agaacaagga ggtggccgtc 60
 aacgacttcc tgcccgccgc cgctgcccgc gaagcatcca gtactccatg taaagtcgcc 120
 ctgctcattt atctcgtgga tgacttgaaa aaaaacgagg tttggattct gggactctgc 180
 attcgtacgt gttgacatgg atctt 205

<210> 343
 <211> 241
 <212> nucleic acid
 <213> Zea mays

 <400> 343

 tcgacatgtg tgaatatgga gcgtgtctga cgatccttcc ggtgcgcgtc cgtccgtccg 60
 ttacgtacgt ggtgccgacg agcaggctcg ggagatcacc aaggggagca aggtgaagta 120
 cgagctggac aagaagacgg ggctcatcaa ggtggaccgg atcctctact cgtccgtcgt 180
 ctaccctcac aactacggt tcgtgccccg gacgctctgc gaggacaacg accccatgga 240
 c 241

<210> 344
 <211> 324
 <212> nucleic acid
 <213> Zea mays

 <400> 344

 ggttcctgcc ttgaacgaaa ggatactgtc atccatgtcc aggaggtctg ttgctgcaca 60
 cccttggcat gatctggaga taggtcctgg tgetccaacc atattcaact gcgtaaggcc 120
 accctgtcat gcttgactgg tcctcttgtg atatgttcat gttaatagca tgatgtcttt 180
 tgttctattg gaaaataaaa agtctccctg gactctaaaa tcaatgcctg tgaacacatg 240
 aactgtttgt gtcacccatg ttctctgct ccttggcact ttctgatgca tgetcaaatg 300
 cttaagaaag actcatagaa gcga 324

<210> 345

<211> 123
 <212> nucleic acid
 <213> Zea mays

 <400> 345

 ctccgcgcca gggccatcgg cctcatgcct atgatagatc agggagagaa ggacgacaag 60
 atcatcgccg tctgcgcga cgaccccgag taccgccact acaacgacat cagcgagctc 120
 tcc 123

<210> 346
 <211> 286
 <212> nucleic acid
 <213> Zea mays

 <400> 346

 ggccgctccg ccaccccgca ctgcctgtc gcctttctc gctttcgcca ccggggcagc 60
 gctccggtga gtggcgaagg gccctcccg gctcccgctt ccctctgcca tggctggacc 120
 tgctgttctc aatgagcgta tcttttctc catgtcccag aaacatgttg ctgctcaacc 180
 atagcatgat ttggagatag gaccaggggc tctgaattc ttcaattgtg tggttgagat 240
 tcttagaggc agcaagggtta agtacgagtt ggacaaggca tctggt 286

<210> 347
 <211> 289
 <212> nucleic acid
 <213> Zea mays

 <220>
 <221> unsure
 <222> (177), (179)
 <223> unsure at all n locations

 <400> 347

 cttgcagga gagaaggacg acaagatcat cgccgtctgc gccgacgacc ccgagtaccg 60
 ccactacaac gacatcagcg agctctcccc tcaccgctc caggagatcc gccgcttctt 120
 tgaagactgt acgcgcgctt gctctctctc tctctctctg ggggcgcgct ttctgngnc 180
 tctctctctc tctctatctc tcggcgctcg ctgtgtgcgc gcgcggtgct ctgtgagcgc 240
 gcgcgcccct ctgtatgagt gcgtgtgtgg gtgtgtgtc tcgcgctct 289

<210> 348
 <211> 96
 <212> nucleic acid
 <213> Zea mays

 <400> 348

 ggaggtccgt agctgctcat ccgtggcatg atcttgagat cggtcctgat gtcctgctg 60
 tttccgaatg ttgttggttca gatcaciaaag ggaagc 96

<210> 349
 <211> 199
 <212> nucleic acid
 <213> Zea mays

 <400> 349

 tagcgagtaa tcggatcgtc aggagtcctg agtgtcatcc gggatgatct tgagatcggt 60
 ctgatgctct gctgttatca atgttggtgt tgagatcaca aaggggaagca acataaaaata 120
 tgagctcgac aagaaaactg gactgattaa ggttgatcga gtcctgcact catcagttgt 180
 ataccacac aattatggt 199

<210> 350
 <211> 284
 <212> nucleic acid
 <213> Zea mays

 <400> 350

 agcgacacgg ttggagacc attcaaagaa gtacattgag actgggtgcc ttggtggcaa 60
 aggcagtgag tcccataagg ctgcggttac aggcgacacg gttggagacc cattcaaaga 120
 cactgcagga ccacgctgc acgttcttat caagatgctc gccacgatca cactggtcat 180
 ggctcccata ttcttgat taaccaacca gatttatcaa gcttgccatt aaccctgcgg 240
 agatgtatct atgcgaactg tagatgaggt gtttacctgc atgt 284

<210> 351
 <211> 132
 <212> nucleic acid
 <213> Zea mays

 <400> 351

 gcactgagaa ctgatcgct ggctagaaca caggtctctc attcacttcc atgcgctccg 60

tggccatcgc cgtccccgac cgcagcgcag gactgaggat aaatgaagaa gttaagggtg 120
ctgcttctgc tg 132

<210> 352
<211> 333
<212> nucleic acid
<213> Zea mays

<400> 352

gccaccgatc gctcctctcc actttccaca ttccagttcc actccgcctc cgctgccggt 60
cgccgactcc gaaactccga cagtccgacc acaaggctct gtgcgggatc cacagaagga 120
tgagtgaaga ggataagact gctgcttctg ctgagcagcc gaagagggcc cctaagctca 180
atgaaaggat cctctcttct ctgtccagga ggtccgtagc tgctcatcca tggcatgatc 240
ttgagatcgg tcttgatgct cctgctgttt tcaatgttgt tgttgagatc acaaagggaa 300
gcaaagttaa atatgagctt gacaagaaaa ctg 333

<210> 353
<211> 340
<212> nucleic acid
<213> Zea mays

<400> 353

ctccgctgcc ggtcgccgac tccgaaactc cgacagtccg accacaagga tccacagaag 60
gatgagtga gaggataagg ctgctgcttc tgctgagcag ccgaagaggg cccctaagct 120
caatgaaagg atcctctctt ctctgtccag gaggtccgta gctgctcatc cgtggcatga 180
tcttgagatc ggtcctgatg ctctgctgt tttcaatgtt gttgttgaga tcacaaaggg 240
aagcaaagtt aaatatgagc tcgacaagaa aactggactg attaagggtg atcgagtcct 300
gtactcatca gttgtatacc ctcacaatta tggttcgtcc 340

<210> 354
<211> 322
<212> nucleic acid
<213> Zea mays

<400> 354

gccaccgatc gctcctctcc actttccaca ttccagttcc actccgcctc cgctgccggt 60

cgccgactcc gaaactccga cagtccgacc acaagaagga tgagtgaaga ggataagact 120
 gctgcttctg ctgagcagcc gaagagggcc cctaagctca atgaaaggat cctctcttct 180
 ctgtccagga ggtccgtagc tgctcatcca tggcatgata ttgagatcgg tcttgatgct 240
 cctgctgttt tcaatgttgt tgttgagatc acaaagggaa gcaaagttaa atatgagctt 300
 gacaagaaaa ctggactgat ta 322

<210> 355
 <211> 357
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (6)
 <223>

<400> 355
 cccanogat cgctcctctc cactttccac attccagttc caacacgcct ccgctgcagg 60
 tcgccgactc cgaaactccg acagtccgac cacaaggtct tgtgcgggat ccacagaagg 120
 atgagtgaag aggataagac tgctgcttct gctgagcagc cgaagagggc ccctaagctc 180
 aatgaaagga tctctctctc tctgtccagg aggtccgtag ctgctcatcc atggcatgat 240
 cttgagatcg gtcttgatgc tctgctgtt ttcaatgttg ttgttgagat cacaaagggg 300
 agcaaagtta aatatgagct tgacaagaaa actggactga ttaagggtga tcgagtc 357

<210> 356
 <211> 309
 <212> nucleic acid
 <213> Zea mays

<400> 356
 accagggatga aaaggatgac aagataatag cagtctgtgc tgatgatcct gaatatcgtc 60
 actacaacga catcagttag ctgtctctc atcgctgca agagatcaag cggttctttg 120
 aagattataa gaagaatgag aataaagagg ttgctgtcga tgcattcttg cctgcgacca 180
 cagctcgaga ggccattcag tactccatgg atctgtatgc gcagtatatt ttgcaaagct 240
 tgaggcagta gattggaagc aactatattat ctgggcgtct tggaatgagt gtgattttaa 300

taagtcaaa

309

<210> 357
<211> 312
<212> nucleic acid
<213> Zea mays

<400> 357

caaagttaaa tatgagcttg acaagaaaac tggactgatt aaggttgatc gagtcctgta 60
ctcatcagtt gtataccctc acaattatgg ttctgttcca aggactcttt gtgaagacaa 120
tgacccaatg gatgtgtag tctgatgca ggagcctgtt gttcctgggt cggtcctgcg 180
agcaagagca atcggcctta tgctcatgat tgaccagggt gaaaaggatg acaagataat 240
agcagtctgt gctgatgatc ctgaatatcg tcaactacaac gacatcagtg agctgtctcc 300
tcatcgctg ca 312

<210> 358
<211> 298
<212> nucleic acid
<213> Zea mays

<400> 358

tcgacagtcc gaccacaagg tcttgtgcgg gatccacaga aggatgagtg aagaggataa 60
gactgctgct tctgctgagc agccgaagag ggcccctaag ctcaatgaaa ggatcctctc 120
ttctctgtcc aggaggtccg tagctgctca tccatggcat gatcttgaga tcggtcctga 180
tgctcctgct gttttcaatg ttgttgttga gatcacaaag ggaagcaaag ttaaataatga 240
gcttgacaag aaaactggac tgattaaggt tgatcgagtc ctgtactcat cagttgta 298

<210> 359
<211> 297
<212> nucleic acid
<213> Zea mays

<400> 359

gcctccgctg ccggtcgccg actccgaaac tccgacagtc cgaccacaag gatccacaga 60
aggatgagtg aagaggataa ggctgctgct tctgctgagc agccgaagag ggcccctaag 120
ctcaatgaaa ggatcctctc ttctctgtcc aggaggtccg tagctgctca tccgtggcat 180

gatcttgaga tcggtcctga tgctcctgct gttttcaatg ttgttggtga gatcacaaag 240

ggaagcaaag ttaaatatga gctcgacaag aaaactggac tgattaaggt tgcgcga 297

<210> 360
<211> 287
<212> nucleic acid
<213> Zea mays

<400> 360

ctccactttc cacattccag ttccactccg cctccgctgc cggtcgccga ctccgaaact 60

ccgacagtcc gaccacaagg tcttggtcgg gatccacaga aggatgagtg aagaggataa 120

gactgctgct tctgctgagc agccgaagag ggccccctaag ctcaatgaaa ggatcctctc 180

ttctctgtcc aggaggtccg tagctgctca tccatggcat gatcttgaga tcggtcctga 240

tgctcctgct gttttcaatg ttgttggtga gatcacaaag ggaagca 287

<210> 361
<211> 282
<212> nucleic acid
<213> Zea mays

<400> 361

gagcactttc cacattccag ttccactccg cctccgctgc cggtcgccgt ctccgagact 60

ccgacagtcc gaccgcaagg tcttggtcgg gatccacaga aggatgagtg aagaggataa 120

gactgctgct tctgctgagc agccgaagag ggccccctaag ctcaatgaaa ggatcctctc 180

ttctctgtcc aggaggtccg tagctgctca tccatggcat gatcttgaga tcggtcctga 240

tgctcctgct gttttcaatg ttgttggtga gatcacaaag gg 282

<210> 362
<211> 297
<212> nucleic acid
<213> Zea mays

<400> 362

ttaagggtga tcgagtcctt tactcatcag ttgtataccc tcacaattat ggtttcattc 60

caaggactac ttgtgaagac aatgacccaa tggatgtgtt ggtcctgatg caggagcctg 120

ttgttccctgg ttcgttccctg agagctagag caattggcct tatgcccattg attgaccagg 180

tagctgctca tccgtggcat gatcttgaga tcggtcctga tgctcctgct gttttcaatg 240
 ttgttggtga gatcacaaag ggaggcaaag ttaaataatga gtcgcacaag aa 292

<210> 366
 <211> 266
 <212> nucleic acid
 <213> Zea mays

<400> 366

ccactttcca cattccagtt ccactccgcc tccgctgccg gtcgccgact ccgaaactcc 60
 gacagtccga ccacaaggat ccacagaagg atgagtgaag aggataaggc tgctgcttct 120
 gctgagcagc cgaagagggc ccctaagctc aatgaaagga tcctctcttc tctgtccagg 180
 aggtccgtag ctgctcatcc gtggcatgat cttgagatcg gtccctgatgc tcctgctggt 240
 ttcaatggtg ttgttgagat cacaaa 266

<210> 367
 <211> 284
 <212> nucleic acid
 <213> Zea mays

<400> 367

ccacattcca gttccactcc gctccgctg ccggtcgccg actccgaaac tccgacagtc 60
 cgaccacaag gatccacaga aggatgagtg aagaggataa ggctgctgct tctgctgagc 120
 agccgaagag ggccccctaa ctcaatgaaa ggatcctctc ttctctgtcc aggaggtccg 180
 tagctgctca tccgtggcat gatcttgaga tcggtcctga tgctcctgct gttttcaatg 240
 ttgttggtga gatcacaaag ggaagcaaag ttaaataatga gctc 284

<210> 368
 <211> 341
 <212> nucleic acid
 <213> Zea mays

<400> 368

ccaggttgct cctcatttcc actttccact gcgcctccgc tgcccatcgc cgtccccgac 60
 cgcagcgcag gactgaggat gagtgaagag gataaggctg ctgcttctgc tgagcagcct 120
 aagagggccc ctaagctcaa tgaaaggatc ctctcctctc tgtccaggag gtccgtagct 180

gctcatccat ggcgatgatct cgagatcggc cctgggtgctc ctgctgtatt caatgttggt 240
 gttgagatca caaaggggaag caaagtcata tacgagcttg acaagaaaac tggactgatt 300
 aagggtgatc gagtccttta ctcatcagtt gtatacctca c 341

<210> 369
 <211> 269
 <212> nucleic acid
 <213> Zea mays

<400> 369

attccactcc gcctccgtgc cggtcgccga ctccgaaaact ccgacagtcc gaccacaagg 60
 tcttggtgcgg gatccacaga aggatgagtg aagaggataa gactgctgct tctgctgagc 120
 agccgaagag ggccccctaag ctcaatgaaa ggatcctctc ttctctgtcc aggaggtccg 180
 tagctgtca tccatggcat gatcttgaga tcggtcctga tgctcctgct gttttcaatg 240
 ttgttggtga gacgccaaag ggaagcaaa 269

<210> 370
 <211> 255
 <212> nucleic acid
 <213> Zea mays

<400> 370

cctcacaatt atggtttcgt tccaaggact ctttgtgaag acaatgaccc aatggatgtg 60
 ttagtctga tgcaggagcc tggtgttcct gggtcggtcc tgcgagcaag agcaatcggc 120
 cttatgccca tgattgacca gggtgaaaag gatgacaaga taatagcagt ctgtgctgat 180
 gatcctgaat atcgtcacta caacgacatc agtgagctgt ctctcatcg cctgcaagag 240
 atcaagcggc tcttt 255

<210> 371
 <211> 285
 <212> nucleic acid
 <213> Zea mays

<400> 371

ctcctctcca ctttccacat tccagttcca ctccgcctcc gctgccggtc gccgactccg 60
 aaactccgac agtccgacca caagaaggat gagtgaagag gataagactg ctgcttctgc 120

<400> 377
aagnaccacc gatcgetcct ctccactttc cacattccag ttccactccg cctccgetgc 60
cggtcgccga ctccgaaact ccgacagtcc gaccacaagg tcttgtgcgg gatccacaga 120
aggatgagtg aagaggataa gactgctgct tctgctgagc agccgaagag ggcccctaag 180
ctcaatgaaa ggatcctctc ttctctgtcc aggaggtccg tagctgctca tccatggcat 240
gatcttgaga tcggctctga tgctcctgct gttttcaatg ttgttggtga gatcacaaaag 300
gga 303

<210> 378
<211> 303
<212> nucleic acid
<213> Zea mays

<400> 378
acgcctccgc tgccgatcgc cgtccccgac cgcagtgcag gactgaggat gagtgaagag 60
gataaggctg ctgcttctgc tgagcagcct aagagggccc ctaagctcaa tgaaaggatc 120
ctctcctctc tgtccaggag gtccgtagct gctcatccat ggcatgatct cgagatcggt 180
cctggtgctc ctgctgtatt caatgttggt gttgagatca caaagggaag caaagtcaaa 240
tacgagcttg acaagaaaac tggactgatt aaggttgatc gagtccttta ctcatcagtt 300
gta 303

<210> 379
<211> 267
<212> nucleic acid
<213> Zea mays

<400> 379
attccaagga ctctttgtga agacaatgac ccaatggatg tgttggtcct gatgcaggag 60
cctggtgttc ctggttcggt cctgagagct agagcaattg gccttatgcc catgattgac 120
cagggtgaaa aggatgacaa gataatagca gtatgtgctg acgatcctga ataccgtcac 180
tacaacgaca tcagcgagct gtctcctcac cgctgcaag agatcaagcg cttctttgaa 240
gattacaaga aaaacgagaa caaagaa 267

<210> 380
 <211> 263
 <212> nucleic acid
 <213> Zea mays

<400> 380

cctggtgctc ctgctgtatt caatgttggt gttgagatca caaaggggaag caaagtcaaa 60
 tacgagcttg acaagaaaac tggactgatt aagggtgatc gagtccttta ctcatcagtt 120
 gtataccctc acaattatgg tttcattcca aggactcttt gtgaagacaa tgacccaatg 180
 gatgtgttgg tcctgatgca ggagcctggt gttcctgggt cgttcctgag agctagagca 240
 attggcctta tgcccatgat tga 263

<210> 381
 <211> 273
 <212> nucleic acid
 <213> Zea mays

<400> 381

agcctccgct gccggtcgcc gactccgaaa ctccgacagt ccgaccacaa gcaggatgag 60
 tgaagaggat aagactgctg cttctgctga gcagccgaag agggccccta agctcaatga 120
 acggatcctc tcttctctgt ccaggagggtc cgtagctgct catccatggc atgatcttga 180
 gatcggtcct gatgctcctg ctgttttcaa tgttggtggt gagatcaciaa agggaagcaa 240
 agttaaatat gagcttgaca agaaaactgg act 273

<210> 382
 <211> 276
 <212> nucleic acid
 <213> Zea mays

<400> 382

gtagctgctc atccatggca tgatcttgag atcggtcctg atgctcctgc tgttttcaat 60
 gttgttggtg agatcaacag cgaagcaaag ttaaataatga gcttgacaag aaaactggac 120
 tgattaagggt tgatcgagtc ctgtactcat cagttgtata cctcacaat tatgggttctg 180
 ttccaaggac tctttgtgaa gacaatgacc caatggatgt gttagtcctg atgcaggagc 240
 ctgttggtcc tgggttcgttc ctggagcaag agcatc 276

<210> 383
 <211> 283
 <212> nucleic acid
 <213> Zea mays

<400> 383

ccactttcca ctgcacctcc gctgcccata gccgtccccg accgcagcgc aggactgagg 60
 atgagtgaag aggataaggc tgctgcttct gctgagcagc ctaagagggc ccctaagctc 120
 aatgaaagga tcctctcctc tctgtccagg aggtccgtag ctgctcatcc atggcatgat 180
 ctcgagatcg gtccctgggtgc tcctgctgta ttcaatgttg ttgttgagat cacaaagggg 240
 agcaaagtca aatacgagct tgacaagaaa actggactga tta 283

<210> 384
 <211> 251
 <212> nucleic acid
 <213> Zea mays

<400> 384

ctccgcctcc gctgcccgtc gccgactccg aaactccgac agtccgacca caaggtcttg 60
 tgcgggatcc acagaaggat gagtgaagag gataagactg ctgcttctgc tgagcagccg 120
 aagagggccc ctaagctcaa tgaaaggatc ctctcttctc tgtccaggag gtccgtagct 180
 gctcatccat ggcattgatct tgagatcggc cctgatgctc ctgctgtttt caatgttggt 240
 gttgagatca c 251

<210> 385
 <211> 263
 <212> nucleic acid
 <213> Zea mays

<400> 385

ctttccactc cgcctccgct gccgatcgcc gtccccgacc gcagtgcagg actgaggatg 60
 agtgaagagg ataaggctgc tgcttctgct gaggcagcta agagggcccc taagctcaat 120
 gaaaggatcc tctcctctct gtccaggagg tccgtagctg ctcatccatg gcatgatctc 180
 gagatcgggtc ctgggtgctcc tgctgtattc aatgttggtg ttgagatcac aaaggggaagc 240
 aaagtcaaat acgagcttga caa 263

gctcctgctg tattcaatgt tgttgttgag atcacaaagg gaagcaaagt caaatacgag 300
cttgacaaga aaa 313

<210> 389
<211> 336
<212> nucleic acid
<213> Zea mays

<400> 389

ctactttcca ctccgcctcc gctgccgac gccgtccccg accgcagtg aggtgaggat 60
ccaaccccaa caaacttcca ggcgacggac tgaggatgag tgaagaggat aaggctgctg 120
cttctgctga gcagcctaag agggccccta agctcaatga aaggatcctc tcctctctgt 180
ccaggaggtc cgtagctgct catccatggc atgatctoga gatcggtcct ggtgctcctg 240
ctgtattcaa tgttgttggt gagatcacia agggaagcaa agtcaaatac gagcttgaca 300
agataactgg actgattaag gttgatcgag tccttt 336

<210> 390
<211> 247
<212> nucleic acid
<213> Zea mays

<400> 390

ggatgacaag ataatagcag tatgtgctga cgatcctgaa taccgtcact acaacgacat 60
cagcgagctg tctcctcacc gcctgcaaga gatcaagcgc ttctttgaag attacaagaa 120
aaacgagaac aaagaagtcg cagttgatgc attcttgccc gcgacaacag ctcaagaagc 180
cattcagtag tccatggacc tgtatgcccc gtatatatttg caaagcttga ggcagtagat 240
tgcaagc 247

<210> 391
<211> 221
<212> nucleic acid
<213> Zea mays

<400> 391

caatgttggt gttgagatca caaaggggaag caaagtcaaa tacgagcttg acaagaaaac 60
tggaactgatt aaggttgatc gagtccttta ctcatcagtt gtataccctc acaattatgg 120

tttcattcca aggactcttt gtgaagacaa tgacccaatg gatgtgttg tctgatgca 180
ggagcctggt gttcctgggt cgttcttgag agctagagca a 221

<210> 392
<211> 263
<212> nucleic acid
<213> Zea mays

<400> 392

gtagtgacga tattcaggat catcagcaca gactgctaga gatcaagcgg ttctttgaag 60
attataagaa gaatgagaat aaagagggtg ctgtcgatgc attcttgctt gcgaccacag 120
ctcgagaggg cattcagtag tccatggatc tgtatgcgca gtatattttg caaagcttga 180
ggcagtagat tggaagcaac tatttafctg ggcgtcttg aatgagtgtg attttaataa 240
gtcaaaacac tgatattgtg tgc 263

<210> 393
<211> 258
<212> nucleic acid
<213> Zea mays

<400> 393

agcggagaaac gacccacagg tgacgacatg cttgctctgc tggactgtta ctctgagtaa 60
gactgctgct tctgctgagc agccgaagag ggcccctaag ctcaatgaaa ggatcctctc 120
ttctctgtcc aggagggtcc tagctgctca tccatggcat gatcttgaga tcggtcctga 180
tgctcctgct gttttcaatg ttgttggtga gatcacaaag ggaagcaaag ttaaataatga 240
gcttgacaag aaaactgg 258

<210> 394
<211> 209
<212> nucleic acid
<213> Zea mays

<400> 394

caagaaaact ggactgatta aggttgatcg agtcctgtac tcatcagttg tataccctca 60
caattatggt ttcgttccaa ggaatctttg tgaagacaat gacccaatgg atgtgttagt 120
cctgatgcag gagcctgttg ttcttggttc gttcctgcga gcaagagcaa tcggccttat 180

gccccatgatt gaccaggggtg aaaaggatg

209

<210> 395
<211> 274
<212> nucleic acid
<213> Zea mays

<400> 395

ctcatttcca ctttccactc cgcctccgct gccgatcgcc gtccccgacc gcagtgcagg 60
actgaggatg agtgaagagg ataaggctgc tgcttctgct gagcagccta agagggcccc 120
taagctcaat gaaaggatcc tctcctctct gtccaggagg tccgtagctg ctcattccatg 180
gcatgatctc gagatcggtc ctgggtgctcc tgctgtattc aatgttgtgg ttgagatcac 240
aaggggaagc caagtcaata cgagcttgac aaga 274

<210> 396
<211> 240
<212> nucleic acid
<213> Zea mays

<400> 396

tcctgatgca ggagcctggt gttcctgggt cgttcctgag agctagagca attggcctta 60
tgcccatgat tgaccagggg gaaaaggatg acaagataat agcagtatgt gctgatgatc 120
ctgaataccg tcaactacaac gacatcagcg agctgtctcc tcaccgcctg caagagatca 180
agcgcttctt tgaagattac aagaaaaacg agaacaaaga agtcgcagtt gatgcattct 240

<210> 397
<211> 313
<212> nucleic acid
<213> Zea mays

<400> 397

tccgcctccg ctgccgatcg ccgtccccga ccgcagtgca ggactgagga tgagtgaaga 60
ggataagggt gctgcttctg ctgagcagcc taagagggca cctaagctca atgaaaggat 120
cctctcctct ctgtccagga ggtccgtagc tgctcatcca tggcatgatc tcgagatcgg 180
tcctgggtgct cctgctgtat tcaatgttgt tgttgagatc acaaagggaa gcaaagtcaa 240
atacgagctt gacaagataa ctggactgat taaggttgat cgagtccttt actcatcagt 300

CCCTGATGCA

<210> 401
 <211> 285
 <212> nucleic acid
 <213> Zea mays

<400> 401

gcgcctccgc tgcccatcgc cgtccccgac cgcagcgcag gtgaggatcc aacccaaca 60
 aacttccagg cgacggactg aggatgagtg aagaggataa ggctgctgct tctgctgagc 120
 agcctaagag ggccccctaag ctcaatgaaa ggatcctctc ctctctgtcc aggagggtccg 180
 tagctgctca tccatggcat gatctcgaga tcggtcctgg tgctcctgct gtattcaatg 240
 ttgttggtga gatcacaag ggaagccaag tcaaatacga gcttt 285

<210> 402
 <211> 222
 <212> nucleic acid
 <213> Zea mays

<400> 402

cccacgagtc cgcccacgcg tccgaaagag gttgctgacg atgcattctt gcctgcgacc 60
 acagctcgag aggccattca gtactccatg gatctgtatg cgcagtatat ttgcaaagc 120
 ttgaggcagt agattggaag caactattta tctgggcgctc ttggaatgag tgtgatttta 180
 ataagtcaaa acacttgata ttgtgagcaa ttcgggggggt tg 222

<210> 403
 <211> 287
 <212> nucleic acid
 <213> Zea mays

<400> 403

attggaagca actatttatc tgggcgtctt ggaatgagtg tgattttaat aagtcaaaac 60
 acttgatatt gtgtgcaaact cttgggggttg agaacaatgt cactagctgt gatttacttc 120
 tgtgacttgc attttttttc ttgttaaatt atgaataagc gaagtccata cgtctactgt 180
 gtggcttctt gctgggttca tcgtctaccc atgttcctca agcttgggaa catggggcct 240
 ttccccattt ccgtgtcttc catgcgaagt aaaatttatt tgtatac 287

<210> 404

<211> 176
 <212> nucleic acid
 <213> Zea mays

 <400> 404

 gggaagcaaa gtcaaatacg agcttgacaa gaaaactgga ctgattaagg ttgatcgagt 60
 cctttactca tcagttgtat accctcacaa ttatggtttc attccaagga ctctttgtga 120
 agacaatgac ccaatggatg tgttggctct gatgcaggag cctgttggtc ctgggtt 176

<210> 405
 <211> 151
 <212> nucleic acid
 <213> Zea mays

 <400> 405

 tccagttcca ctccgcctcc gctgccggtc gccgactccg aaactccgac agtccgacca 60
 caaggtcttg tgcggggatcc acagaaggat gagtgaagag gataagactg ctgcttctgc 120
 tgagcagccg aagagggccc ctaagctcaa t 151

<210> 406
 <211> 263
 <212> nucleic acid
 <213> Zea mays

 <400> 406

 gaacaaagaa gtcgcagttg atgcattctt gcccgcgaca acagctcaag aagccattca 60
 gtactccatg gacctgtatg ccagtatat ttgcaaagc ttgaggcagt agattgcaag 120
 caacaattta tctatcatgc gtcttgatc ggggcgtgat tttaataagc cgaatcgctt 180
 gctatattgc gaaccttggga attgagaaca gcgtcactag ctgtgattcg ctcttttctc 240
 gttaaattat catatgaata ggc 263

<210> 407
 <211> 237
 <212> nucleic acid
 <213> Zea mays

 <400> 407

 gcacgagaga agtcgcagtt gatgcattct tgcccgcgac aacagctcaa gaagccattc 60

agtactccat ggacctgtat gcccagtata ttttgcaaag cttgaggcag tagattgcaa 120
gcaacaattt atctatcatg cgtcttggat gggggcgtga ttttaataag ccaaatacgt 180
tgctatatattg ggaaccttgg aattgagaac agcgtcacta gctgtgattc gctcctt 237

<210> 408
<211> 166
<212> nucleic acid
<213> Zea mays

<400> 408

cggacgctgg gcgagtcctt tactcatcag ttgtataccc tcacaattat ggtttcattc 60
caaggacact ttgtgaagac aatgacccaa tggatgtgtt ggtcctgatg caggagcctg 120
ttgttcctgg ttcgttcctg agagctagag caattggcct tatgcc 166

<210> 409
<211> 237
<212> nucleic acid
<213> Zea mays

<400> 409

cagacgcgtg gccgctgcc atcgccgtcc ccgaccgcag cgcagggtgag gatccaaccc 60
caacaaaatt ccaggcgacg gactgaggat gagtgaagag gataaggctg ctgcttctgc 120
tgagcagcct aagagggccc ctaagctcaa tgaaaggatc ctctcctctc tgtccaggag 180
gtccgtagct gctcatccat ggcattgatc cgagatcggt cctgggtgctc ctgctgt 237

<210> 410
<211> 137
<212> nucleic acid
<213> Zea mays

<400> 410

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gttggtgttg agatcacaaa gggaagcaaa gttaaataatg agcttgacaa gaaaactgga 120
ctgattaagg ttaaccg 137

<210> 411
<211> 191
<212> nucleic acid

<213> Zea mays

<400> 411

acactgcacc tccgctgccc atcgccgtcc ccgaccgcag cgcaggacta gtatgaggat 60
aaggctgctg cttctgctga gcagcctaag agggccccta agctcaatga aaggatcctc 120
tcctctctgt ccaggaggtc cgtagctgct catccatggc atgatctcga gatcggtcct 180
ggtgctcctg c 191

<210> 412

<211> 136

<212> nucleic acid

<213> Zea mays

<400> 412

gtgttggtcc tgatgcagga gcctgttgtt cctggttcgt tcctgagagc tagagcaatt 60
ggccttatgc ccatgattga ccagggtgaa aaggatgaca agataatagc agtatgtgct 120
gacgatcctg aatacc 136

<210> 413

<211> 160

<212> nucleic acid

<213> Zea mays

<400> 413

acggcccacc tggaagccgg agagaatcga gcagagccac cgatcgctcc tctccacttt 60
ccacattcca gttccactcc gcctccgctg ccggtcgccg actccgaaac tccgacagtc 120
cgaccacaag gatccacaga aggatgagtg aagaggataa 160

<210> 414

<211> 155

<212> nucleic acid

<213> Zea mays

<400> 414

cgctcctctc cactctccac attccagttc cactccgcct ccgctgccgg tcgccgactc 60
cgatactccg acagtccgac cacaaggtct tgtgcgggat ccacagaagg atgagtgaag 120
aggataagac tgctgcttct gctgagcagc cgaag 155

<210> 415
 <211> 135
 <212> nucleic acid
 <213> Zea mays
 <400> 415
 ccagggttgct cctcatttcc actttccact gcggtccgc tgcccatcgc cgtccccgac 60
 cgcagcgcag gactgaggat gagtgaagag gataaggctg ctgcttctgc tgagcagcct 120
 aagagggcc ctaag 135

<210> 416
 <211> 186
 <212> nucleic acid
 <213> Zea mays
 <400> 416
 agagaatcga gcagagccac ccggtgctc ctcatttcca ctttccactc cgctccgct 60
 gccgatcgcc gtccccgacc gcagtgcagg actgaggatg agtgaagagg ataaggctgc 120
 agcttctgct gagcagccta agaggggccc taagctcaat gaaaggatcc tctcctctct 180
 gtccag 186

<210> 417
 <211> 303
 <212> nucleic acid
 <213> Zea mays
 <400> 417
 aaccgctcgc ccacctcgcc actcgctctt tctcgctctc gccaccgggc cagggaaggg 60
 accatccgat cggatccgtc atggctggag ctgctgctct caatgagggt atcctttctt 120
 ccgtgtccga gaaaaatggt gctgctcacc catggcatga tttggagata ggaccagagg 180
 ctctgcagt gttcaattgt gtggttgaga ttcctagagg cagcaagggt aagtatgagt 240
 tggacaagat atctggtctg atcaagggtg atcgtgtcct ttactcctct gttgtttacc 300
 cac 303

<210> 418
 <211> 290
 <212> nucleic acid

<213> Zea mays

<400> 418

ctcgaggccg ctccgccacc tcgccactcg cctctttctcg ctctcgccac cgggccaggg 60
aagggaccat ccgatcggct ccgtcatggc tggagctgct gctctcaatg agggatcct 120
ttcttccgtg tccgagaaaa atgttgctgc tcacccatgg catgatttgg agataggacc 180
agaggctcct gaagtgttca attgtgtggt tgagattcct agaggcagca aggttaagta 240
tgagttggac aagatatctg gtctgatcaa ggtggatcgt gtcctttact 290

<210> 419

<211> 309

<212> nucleic acid

<213> Zea mays

<400> 419

tggacagcag cagtgaactc gacgccgctc cgccacctcg ccactcgctt cttctcgctc 60
tcgccaccgg gccaggggaag ggaccatccg atcggctccg tcatggctgg agctgctgct 120
ctcaatgagg gtatcctttc ttccgtgtcc gagaaaaatg ttgctgctca cccatggcat 180
gatttggaga taggaccaga ggctcctgaa gtgttcaatt gtgtggttga gattcctaga 240
ggcagcaagg ttaagtatga gttggacaag atatctggtc tgatcaagggt ggatcgtgct 300
ctttactcc 309

<210> 420

<211> 258

<212> nucleic acid

<213> Zea mays

<400> 420

ctcgaggccg ctccgccacc tcgccactcg cctctttctcg ctctcgccac cgggccaggg 60
aagggaccat ccgatcggct ccgtcatggc tggagctgct gctctcaatg agggatcct 120
ttcttccgtg tccgagaaaa atgttgctgc tcacccatgg catgatttgg agataggacc 180
agaggctcct gaagtgttca attgtgtggt tgagattcct agaggcagca aggttaagta 240
tgagttggac aagatatc 258

<210> 421

<211> 293
 <212> nucleic acid
 <213> Zea mays

 <400> 421

 tgcagcagtg aactcgaggc cgctccgcca cctcgccaact cgctcttctt cgctctcgcc 60
 accggggccag gtgaagggac catccgatcg gctccgtcat ggctggagct gctgctctca 120
 atgaggggtat cctttcttcc gtgtccgaga aaaatgttgc tgctcaccca tggcatgatt 180
 tggagatagg accagaggct cctgaagtgt tcaattgtgt gggtgagatt cctagaggca 240
 gcaagggttaa gtatgagttg gacaagatat ctgggtctgat caagggtggat cgt 293

<210> 422
 <211> 315
 <212> nucleic acid
 <213> Zea mays

 <400> 422

 gccctggaca gcagcagcga actcgaggcc gctccgccac ctcgccaactc gcctcttctc 60
 gctctcgcca ccggggccagg ggcggggacca tccgatcggc tccgtcatgg ctggagctgc 120
 tgctctcaat gagggtatcc tttcttccgt gtccgagaaa aatgttgctg ctcacccatg 180
 gcatgatttg gagataggac cagaggctcc tgaagtgttc aattgtgtgg ttgagattcc 240
 tagaggcagc aagggttaagt atgagttgga caagatatct ggtctgatac aggtggatcg 300
 tgtcctttac tctc 315

<210> 423
 <211> 254
 <212> nucleic acid
 <213> Zea mays

 <400> 423

 ctcgaggccg ctccgccacc tcgccactcg cctcttctcg ctctcgccac cggggccaggg 60
 aagggaacct ccgatcggct ccgtcatggc tggagctgct gctctcaatg agggatcct 120
 ttcttccgtg tccgagaaaa atgttgctgc tcacccatgg catgatttgg agataggacc 180
 agaggctcct gaagtgttca attgtgtggg tgagattcct agaggcagca aggttaagta 240
 tgagttggac aaga 254

<210> 424
 <211> 266
 <212> nucleic acid
 <213> Zea mays

<400> 424

cgccccggag ccttgacag cagcagtga ctcgaggccg ctccgccacc tcgccactcg 60
 cctctttctcg ctctcgccac cgggccaggg aagggaacct ccgatcggct ccgtcatggc 120
 tggagctgct gctctcaatg agggatatct ttcttccgtg tccgagaaaa atgttgctgc 180
 tcacccatgg catgatttgg agataggacc agaggctcct gaagtgttca attgtgtggt 240
 tgagattcct agaggcagca aggtta 266

<210> 425
 <211> 260
 <212> nucleic acid
 <213> Zea mays

<400> 425

ggagccctgg acagcagcag tgaactcgag gccgtccgc cacctcgcca ctgcctctt 60
 ctgcctctcg ccaccgggcc agggaaacgga ccatccgatc ggctccgtca tggctggagc 120
 tgctgctctc aatgagggtta tctttcttc cgtgtccgag aaaaatgttg ctgctcacc 180
 atgcattgat ttggagatag gaccagaggc tctgaagtg ttcaattgtg tggttgagat 240
 tcttagaggc agcaagggtta 260

<210> 426
 <211> 278
 <212> nucleic acid
 <213> Zea mays

<400> 426

gttgccatta tatcagcata ttggctgggg cagacctctg gcttggtgga cgagtctggc 60
 aacccaactg gtggtctttt tgggacagct gtagcaacaa tggggatgct tagcactgca 120
 gggatatgttc tcacatgga catgtttggt cctatagctg acaacgctgg tggattgtt 180
 gagatgagcc agcagcctga aagtgtgagg gaaatcacag atgttctaga tgctgtgggc 240
 aacacaacta aagctactac gaaaggattt gccatagg 278

<210> 427
 <211> 277
 <212> nucleic acid
 <213> Zea mays

 <400> 427

 atcacccatg gccgttggcg ttgtcttccg gattttgggc cactacactg gtcagcctct 60
 tcttgagact aaagttgtag cctccatgct gatgtttgcg acggtcgctg ggattctcat 120
 ggcactcttg cttgaacact gctggcgggc cctgggataa tgcaaagaag tacattgaga 180
 ctggcgctct tgggtggcaag ggcagcgagt cccacaaggc tgcggttact ggcgacacgg 240
 ttggagaccc attcaaagac actgctggac cgtcgct 277

<210> 428
 <211> 265
 <212> nucleic acid
 <213> Zea mays

 <400> 428

 ttttgtttca attgtcaggt ggttgagatt cctagaggca gcaagggtta gtacgagttg 60
 gacaaggcat ctggtctgat caagggtggac cgtgttcttt attcctctgt tgtttaccca 120
 cataactatg gcttcattcc acgcacactc tgtgaggata acgacccccct ggatgtcctc 180
 atactgatgc aggaacaagt tgtccctggg tgtttcctgc gagctcgtgc tattgggctc 240
 atgcctatga tcgatcaggg cgaga 265

<210> 429
 <211> 302
 <212> nucleic acid
 <213> Zea mays

 <400> 429

 cacactgatc cggcctggag cgctggacag cagcagcagc atcgagctcg aggccgctcc 60
 gccaccccg c actcgctgt cgctctttct cgctttcgcc accggggcag cgctccgcca 120
 tggttgacc tgetgttctc aatgagcgta tcctttcttc catgtcccag aaacatgttg 180
 ctgctcacc atggcatgat ttggagatag gaccaggggc tcctgaattc ttcaattgtg 240
 tggttgagat tcctagaggc agcaagggtta agtacgagtt ggacaaggca tctggtctga 300

<210> 433
 <211> 211
 <212> nucleic acid
 <213> Zea mays
 <400> 433
 tgatccggcc tggagcgctg gacagcagca gcagcatcga gctcgaggcc gctccgccac 60
 cccgcactcg cctgtgcctt cttctcgctt tcgccaccgg ggcagcgctc cgccatggct 120
 ggacctgctg ttctcaatga gcgtatcctt tcttccatgt ccagaaaaca tgttgctgct 180
 caccatggc atgatttgga gataggacca g 211

<210> 434
 <211> 260
 <212> nucleic acid
 <213> Zea mays
 <400> 434
 gacagcagca gcagcagcag catcgagctc gaggccgctc cgccaccccg cactcgctg 60
 tcgcctcttc tagctttcgc caccggggca gcgtccgcc atggttgga ctgctgttct 120
 caatgagcgt atcctttctt ccatgtccca gaaacatgtt gctgctcacc catggcatga 180
 tttggagata ggtggttgag attcctagag gcagcaaggt taagtacgag ttggacaagg 240
 catctggtct gatcaagggtg 260

<210> 435
 <211> 376
 <212> nucleic acid
 <213> Zea mays
 <220>
 <221> unsure
 <222> (7)
 <223>
 <400> 435
 gctctcncct caccgcctcc aggagatccg ccgcttcttc gaagactaca agaagaacga 60
 gaacaaggag gtggccgtca acgacttcct gcccgccgcc gctgcccgcg aaccatccag 120
 tactccatgg acctgtacgg ccagtacatc atgcagaccc tgcggcggtg gagcgtgtcc 180
 taccagatcc catgcgagct gagctgacgc aagagcacag atcgacagaa tccttggtgt 240

acgctttgtg aagacagtga tcctttggat gtactggta taatgcagga gcctgttatc 180
ccaggctgtt tcctacgtgc gaaggccatc ggccttatgc cgatgattga tcagggagag 240
gcagatgaca agatcattgc agtgtgcgct gatg 274

<210> 439
<211> 292
<212> nucleic acid
<213> Zea mays

<400> 439

caagggttaa tatgaacttg acaagaaaac tggactgatc aaggtggacc gtgtgctgta 60
ttcatcagtt gtttaccctc acaactatgg attcattcct cgcacgcttt gtgaagacag 120
tgatcctttg gatgtactgg ttataatgca ggagcctggt atcccaggct gtttcctacg 180
tgcgaaggcc atcggcctta tgccgatgat tgatcaggga gaggcagatg acaagatcat 240
tgcagtgtgc gctgatgatc ccgagtacag gcattacaat gatatcaagg ag 292

<210> 440
<211> 321
<212> nucleic acid
<213> Zea mays

<400> 440

ggcgcccgtc gtagaagccg tgaaggagac aggcaccttc cagaagggtc ctgccttgaa 60
cgaaaggata ctgtcatcca tgtccaggag gtctgttgct gcacaccctt ggcatgatct 120
ggagataggt cctggtgctc caaccatatt caactgcgtc attgagatac caaggggcag 180
ctagggttaa tatgaacttg acaagaaaac tggactgatc aaggtggacc gtgtgctgta 240
ttcatcagtt gtttaccctc acaactatgg attcattcct cgcacgcttt gtgaagacag 300
tgatcctttg gatgtactgg t 321

<210> 441
<211> 276
<212> nucleic acid
<213> Zea mays

<400> 441

cacacccttg gcatgatctg gagataggct ctggtgctcc aaccatattc aactgcgtca 60

ttgagatacc aaggggcagc aagggttaaat atgaacttga caagaaaact ggactgatca 120
 aggtggaccg tgtgctgtat tcatcagttg ttaccctca caactatgga ttcattcctc 180
 gcacgctttg tgaagacagt gatcctttgg atgtactggg tataatgcag gagcctgtta 240
 tcccaggetg tttcctacgt gcgaaggcca tcggcc 276

<210> 442
 <211> 272
 <212> nucleic acid
 <213> Zea mays

<400> 442

ctggactgat caaggtggac cgtgtgctgt attcatcagt tgtttaccct cacaactatg 60
 gattcattcc tcgcacgctt tgtgaagaca gtgatccttt ggatgtactg gttataatgc 120
 aggagcctgt tatcccaggc tgtttcctac gtgcgaaggc catcggcctt atgccgatga 180
 ttgatcaggg agaggcagat gacaagatca ttgcagtgtg cgctgatgat cccgagtaca 240
 ggcattacaa tgatatcaag gagtccccac ct 272

<210> 443
 <211> 270
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (23)
 <223>

<400> 443

gatgtactgg ttataatgca gnggcctgtt atcccaggct gtttcctacg tgcgaaggcc 60
 atcggcctta tgccgatgat tgatcaggga gaggcagatg acaagatcat tgcagtgtgc 120
 gctgatgatc ccgagtacag gcattacaat gatatcaagg agtccccacc tcaccgcttg 180
 gctgaaatca ggcgcttctt cgaggactac aagaagaatg agaacaagga gggttgctgtg 240
 aatgactttc taccagcgag cgccgcttat 270

<210> 444
 <211> 245
 <212> nucleic acid

<213> Zea mays

<400> 444

gcacgagatt cattcctcgc acgctttgtg aagacagtga tcctttggat gtactggtta 60

taatgcagga gcctgttatc ccaggctgtt tcctacgtgc gaaggccatc ggccttatgc 120

cgatgattga tcagggagag gcagatgaca agatcattgc agtgtgcgct gatgatcccg 180

agtacaggca ttacaatgat atcaaggagc tcccaccta ccgcttggct gaaatcaggc 240

gcttc 245

<210> 445

<211> 306

<212> nucleic acid

<213> Zea mays

<400> 445

ccgtgtgctg tattcatcag ttgtttaccc tcacaactat ggattcattc ctgcacgct 60

ttgtgaagac agtgatcctt tggatgtact ggttataatg caggagcctg ttatcccagg 120

ctgtttccta cgtgcgaagg ccatcggcct tatgccgatg attgatcagg gagaggcaga 180

tgacaagatc attgcagtgt gcgctgatga tcccgagtac aggcattaca atgatatcaa 240

ggagctccca cctcaccgct tggctgaaat caggcgcttc ttcgaggact acaagaagaa 300

tgagaa 306

<210> 446

<211> 310

<212> nucleic acid

<213> Zea mays

<220>

<221> unsure

<222> (281)

<223>

<400> 446

caggctgttt cctacgtgcg aagccatcgg cttatgccga tgattgatca gggagaggca 60

gatgacaaga tcattgcagt gtgcgctgat gatcccgagt acaggcatta caatgatatc 120

aaggagctcc cacctcaccg cttggctgaa atcaggcgct tcttcgagga ctacaagaag 180

aatgagaaca aggaggttgc tgtgaatgac tttctaccag cgagcgccgc ttatgaagcc 240

atacagcact ctatggacct gtatgctaca tacatcggtg naggcatgag gaggtaagat 300
tctgatggct 310

<210> 447
<211> 273
<212> nucleic acid
<213> Zea mays

<400> 447

gttccaacca tattcaactg cgtcattgag ataccaaggg gcagcaaggt tagctatgaa 60
cttgacaaga aaactggact gatcaagggtg gaccgtgtgc tgtattcatc agttgtttac 120
cctcacaact atggattcat tcctcgcacg ctttgtgaag acagtgatcc tttggatgta 180
ctggttataa tgcaggagcc tgtcatccca ggctgtttcc tacgtgcaa ggccatcggc 240
tttatgccga tgattgatca gggagaggca gat 273

<210> 448
<211> 310
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (143)
<223>

<400> 448

atgaactgtt tgtgtcacc atgttcctct gtccttggc actttctgat gcatgctcaa 60
atgcttaaga aagactcata gaagcgactc ctattcctat gccaggatcat tgagatacca 120
aggggcagca aggttaaata tgnacttgac aagaaaactg gactgctcaa ggtggaccgt 180
gtgctgtatt catcagttgt ttaccctcac aactatggat tcattcctcg cacgctttgt 240
gaagacagtg atcctttgga tgtactgggtt ataatgcagg agcctgttat cccaggctgt 300
ttcctacgtg 310

<210> 449
<211> 192
<212> nucleic acid
<213> Zea mays

<400> 449
gcatgatctg gagataggtc ctggtgctcc aaccatattc aactgcgtca ttgagatacc 60
aaggggcagc aaggttaaat atgaacttga caagaaaact ggactgatca aggtggaccg 120
tgtgctgtat tcatcagttg tttaccctca caactatgga ttcattcctc gcacgctttg 180
tgaagacagt ga 192

<210> 450
<211> 225
<212> nucleic acid
<213> Zea mays

<400> 450
gggtgatggc cccgagtgcg ggcgttgctg tggatatcag ggcctccgc ctcgcgctt 60
ggctgagatc aggcgcttct tcgaggactg cgagaagaat gagagcgagg cggctgctgt 120
gaatgacttt ctgccggcga gcgcgcttg tgaagccgtg cggcgctctg tgggcctgtg 180
tgctgcgtgc gtcgcttgagg gcctgaggag gtaggattct gatgg 225

<210> 451
<211> 244
<212> nucleic acid
<213> Zea mays

<400> 451
cgccgctgac ccaggttgct ttgatggcgc ccgctgtaga agccgtgaag gagacaggca 60
ccttccagaa ggttcctgcc ttgaacgaaa ggatactgtc agccatgtcc aggaggtctg 120
ttgctgcaca cccttggeat gatctggaga taggtcctgg tgctccaacc atattcaact 180
gcgtcattga gataccaagg ggctactagg ttaaatatga acttgacaag aaaactggac 240
tgat 244

<210> 452
<211> 311
<212> nucleic acid
<213> Zea mays

<400> 452
cggtccgctc gtcgctgcc atcctagggt ttctttcccc gtcggcgcct cccagattt 60

ggcgcgcgcc gccgctgacc caggttgtct tgatggcgcc cgctgtagaa gccgtgaagg 120
agacaggcac cttccagaag gttcctgcct tgaacgaaag gatactgtca tccatgtcca 180
ggaggtctgt tgctgcacac cttggcatg atctggagat aggtcctggt gctccaacca 240
tattcaactg cgtcattgag ataccaaggg gcagcaaggt taaatatgaa cttgacaaga 300
aaactggact g 311

<210> 453
<211> 301
<212> nucleic acid
<213> Zea mays

<400> 453

agctccgtcg tcgctgcca tcctaggggt tttttcccg tcggcgctc cccagatttg 60
gccgcgcgcg ccgctgacc aggttgtct gatggcgccc gctgtagaag ccgtgaagga 120
gacaggcacc ttccagaagg ttctgcctt gaacgaaagg atactgtcat ccatgtccag 180
gaggtctgtt gctgcacacc cttggcatga tctggagata ggtcctggtg ctccaacccat 240
attcaactgc gtcattgaga taccaagggg cagcaagggt aaatatgaac ttgacaagaa 300
a 301

<210> 454
<211> 290
<212> nucleic acid
<213> Zea mays

<400> 454

ctgaaatcag gcgcttcttc gaggactaca agaagaatga gaacaaggag gttgctgtga 60
atgactttct accagcgagc gccgcttatg aagccataca gcaactctatg gacctgtatg 120
ctacatacat cgttgagggc ctgaggaggt aggattctga tggctaggaa aggtggggag 180
gatgttgacg aaaaactggg agaccattta ccgcatggaa cgagtaccgt tattatttta 240
tttgtgtcgt gtatactgct agtagtgaac cctcaatcaa agaccgaaat 290

<210> 455
<211> 249
<212> nucleic acid
<213> Zea mays

ctttggatgt actggttata atgcangagc ctgttatccc aggctgtttc ctacgtgcg 359

<210> 458
<211> 293
<212> nucleic acid
<213> Zea mays

<400> 458

gactagttct agatccccgc tccgtcgtcg tcgtgccatc ctaggggtttc tttccccgtc 60
ggcgcctccc cagatttggc cgccgccgcc gctgaccag gttgtcttga tggcgcccg 120
ctgtagaagc cgtgaaggag acaggcacct tccagaaggt tcctgccttg aacgaaagga 180
tactgtcatc catgtccagg aggtctgttg ctgcacaccc ttggcatgat ctggagatag 240
gtcctggtgc tccaaccata ttcaactgcg tcattgagat accaaggggc agc 293

<210> 459
<211> 290
<212> nucleic acid
<213> Zea mays

<400> 459

actagttcta gatccccggt ccgtcgtcgc gtgccatcct aggggtttctt tccccgtcgg 60
cgctcccca gatttggccg ccgccgccgc tgaccaggt tgtcttgatg gcgcccgtg 120
tagaagccgt gaaggagaca ggcaccttcc agaaggttcc tgccttgaac gaaaggatac 180
tgtcatccat gtccaggagg tctgttgctg cacacccttg gcatgatctg gagataggtc 240
ctggtgctcc aaccatattc aactgcgtca ttgagatacc aaggggcagc 290

<210> 460
<211> 277
<212> nucleic acid
<213> Zea mays

<400> 460

eggctcgagg gctccgtcgt cgcgtgccat cctaggggttt ctttccccgt cggcgcctcc 60
ccagatttgg ccgccgccgc cgtgaccca gggtgtcttg atggcgcccg ctgtagaagc 120
cgtgaaggag acaggcacct tccagaaggt tcctgccttg aacgaaagga tactgtcatc 180
catgtccagg aggtctgttg ctgcacaccc ttggcatgat ctggagatag gtcctggtgc 240

6699760

tccaaccata ttcaactgcg taaggccacc ctgtcat

277

<210> 461
<211> 265
<212> nucleic acid
<213> Zea mays

<400> 461

cggaacgtgg gcggctccgt cgtcgcgtgc catcctaggg tttctttccc cgtcggcgcc 60
tccccagatt acgccgccgc cgccgctgac ccaggttgtc ttgatggcgc ccgctgtaga 120
agccgtgaag gagacaggca ccttccagaa ggttcctgcc ttgaacgaaa ggatactgtc 180
atccatgtcc aggaggtctg ttgctgcaca cccttggcat gatctggaga taggtcctgg 240
tgctccaacc atattcaact gcgtc 265

<210> 462
<211> 183
<212> nucleic acid
<213> Zea mays

<400> 462

gctgaaatca ggcgcttcta cgaggactac aagaagaatg agaacaagga ggttgctgtg 60
aatgactttc taccagcgag cgccgctatg aagccataca gcactctatg gacctgtatg 120
ctacatacat cgttgagggc ctgaggaggt aggattctga tggctaggaa aggtggggag 180
gat 183

<210> 463
<211> 291
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (261)
<223>

<400> 463

caatgattga tgagggagag cttgactgga aaattgtggc catttctttg gatgacccga 60
aagcatctct tgtgaacgac gtggatgatg ttgagaagca ttttccgggg aactgactg 120

ccatcagaga ctggttcaga gactacaaga tacctgatgg aaagcctgcc aacaaatttg 180
gtctcggcaa caagcccgca agcaaggaat acgccctgaa ggtcattcaa gagaccaacg 240
aatcatggga gaaattggta nagagaaata ttcccgtgg agagctctcg t 291

<210> 464
<211> 281
<212> nucleic acid
<213> Zea mays

<400> 464

ccgaaagcat ctcttgtaga cgacgtggat gatgttgaga agcattttcc ggggacactg 60
actgccatca gagactgggt cagagactac aagatacctg atggaaagcc tgccaacaaa 120
tttgggtctcg gcaacaagcc cgcaagcaag gaatacgccc tgaagggtcat tcaagagacc 180
aacgaatcat gggagaaatt ggtaaagaga aatattcccg ctggagagct ctcgttggcc 240
tgattttggc ccatggaagc caccacattc ttttgaactg c 281

<210> 465
<211> 269
<212> nucleic acid
<213> Zea mays

<400> 465

tggtgagaag cattttccgg ggacactgac tgccatcaga gactggttca gagactacaa 60
gatacctgat ggaaagcctg ccaacaaatt tgggtctcgcc aacaagcccc caagcaagga 120
atacgccctg aagggtcattc aagagaccaa cgaatcatgg gagaaattgg taaagagaaa 180
tattcccgtt ggagagctct cgttggcctg attttggccc atggaagcca ccacattctt 240
ttgaactgct ttcgtgagca tgcgtttt 269

<210> 466
<211> 257
<212> nucleic acid
<213> Zea mays

<400> 466

gaccaactt ctgcaaattc tgaggttgaa ggagcgtttg gggataatga tcctgttgat 60
gttgttgaga tcggtgaaag acgtgccaat gtcggggatg ttcttaaggt taagccattg 120

<221> unsure
 <222> (45)
 <223>

 <400> 469

 agttgtgtat gtcacgggtct gatgcgcgcc actctcacat gcctncgcct gtcaggcagc 60
 gccaccgggt ctgtttcgtc atggttatga caaaagtgga tgcagttctc cgttgccgat 120
 tctcggaatc ggttttctcga ttgatgcctg aaatttcatc atgattagcg tttatgggtg 180
 atttcaacga tgaggggggtt cccaagggtc atgctttccc tctcacgatg cctactgtta 240
 ctctgattga gtgaagattt gcaaccttca ctcacaggtc agctgctgca catccgtggc 300
 atttcgtgta gattgttcca taagcgccta ctgttttcaa ctgtgtagtt gtcattatca 360
 agagtagtac ggttaagtat gagctacaca cagacagtag acttaattgg gctgatcacg 420
 ttctctattc aaccattatt tcccccaaa gctacgggtt ca 462

<210> 470
 <211> 408
 <212> nucleic acid
 <213> Zea mays

<400> 470

 ggggtggcgta cttcacgtcg cgggtgcggtc tacaattaga gtcgagcacg cgtccgatca 60
 tagtccgtgt acgcgtccaa tgacgtctct tgcacagcgc accataactc agcatttact 120
 gaacatggac tgcagctccc ctccggaggcg tcctcgctgg catgagcggg agaggagcta 180
 ctgggtactac atctaatagc atggactggc ctgggtgaatg tggaccgtct gctttaatca 240
 tcaattattt aagctcataa ctatggattc attcctcaca cgctttgtga acacagtgat 300
 cctttggatg tactgggttat aatgcaggag cctgttatcc caggctgttt cctatgtgcg 360
 attgcaatcg gccttatccc gaatattgat cagggagaag cagatgac 408

<210> 471
 <211> 424
 <212> nucleic acid
 <213> Zea mays

<400> 471

 agcgtcaccg tcctgggtgat cacgcccaga tcaaatacta ttcaaatttg gagcgcaata 60

tggctgaaga gaagagccgt ccgcggtga acgagcggat catgtcgtcc ctctcaaagc 120
 ggtcgggtcgc tgcgcattcc tggcatgacc ttgagatagg acctggagcc cctgctgttt 180
 tcaattgtgt tgttgagatc acaaagggca gtaaagtga atatgagcta gacaagaaga 240
 ccggaatgat caaggttgac aggggtgctat actcatcagt ggtctaccca cacaactacg 300
 gtttcattcc acgaacattg tgtgaagacg gagatccaat ggatgtgctg gtgttgatgc 360
 aggaaccggg gatacctggc tgttttcttc gggcaagggc catcggcctt atgcccata 420
 ttga 424

<210> 472
 <211> 472
 <212> nucleic acid
 <213> Zea mays
 <220>
 <221> unsure
 <222> (12)...(14), (33), (52)
 <223> unsure at all n locations
 <400> 472

agaaatggtg tnnncctaaa tctcagcctg atnctttacc actccctccg gnatccgggc 60
 aagcgccgga tccacgcgtc ccgtgactcg tggcgggtgc cccgttgct ctctgtaaaa 120
 ccagacggcg aaccactgct gcggtccact gcatcccggt tccgtcttct cgtgccatgc 180
 tacggttgct ttctcccgtc ggcgcctgcg cagatttggt cgccgtcgcc gctgaccag 240
 gctgtcttga tggcgcccgga tgcagaagcc gctaagggga caggcaccgt tccacaaagg 300
 tgctctgcca ttgaacgaaa ggatactggc atgcatgtcc aggaggtctg ctgctggaca 360
 cccttggcat gatctggaga taggccttgg agctccaacc atattcaact gcgtcattga 420
 gatacccagg ggcagcaagg tttaatatga acttgacaag gaaactggac tg 472

<210> 473
 <211> 239
 <212> nucleic acid
 <213> Zea mays
 <400> 473

catgtacacc gtcttaagag agttaaatgt tagtgcttgc ctctgttag attgaatggg 60
 cggtttaacc gagacattca gacaagaaga atgagaacaa ggagggtgct gcgaatgact 120

<212> nucleic acid
 <213> Zea mays

 <400> 476

 ccgcagtgca ggactgagga tgagtgaaga ggataaggct gctgcttctg ctgagcggcc 60
 taagagggcc cctaagctca atgaaaggat cctctcctct ctgtccagga ggtccgtagc 120
 tgctcatcca tggcatgata tcgagatcgg tcttggtgct cctgctgtat tcaatgttgt 180
 tgttgagata acaaagggaa gcaaagtcaa atacgagctt gacaagaaaa ctggactgat 240
 taaggttgat cgagtccttt actcatcagt tgtataccct cacaattatg gtttcattcc 300
 aaggactcct tgtgaagaca atgacccaat ggatgtgttg gtcttgatgc aggagcctgt 360
 tgttctcgtt tcgttctga gagctagagc 390

<210> 477
 <211> 398
 <212> nucleic acid
 <213> Zea mays

 <220>
 <221> unsure
 <222> (336), (376)
 <223> unsure at all n locations

<400> 477

 cggacgcgtg ggcggacgcg tgggcggacg cgtgggcgca tcgtcctctt ccaactgtcca 60
 gattccagtt ccaactccgc tccgctgcgc gtcgccgact ccgaaactcc gacagtccga 120
 ccacaaggta ttgtgcggga tccacagaag gatgagtga gaggataaga ctgctgcttc 180
 tgctgagcag ccgaagaggg cccctaagct caatgaaagg atcctctctt ctctgtccag 240
 gaggtccgta gctgctcatt cgtggcatga tcttgagata ggtcctgatg ctctgctgt 300
 tttcaatgtt gttgttgaga tcacaaaggg aagcanagtt aaatatgagc ttgacaagaa 360
 aactggactg attaanggtg atcgagtcct atactcat 398

<210> 478
 <211> 362
 <212> nucleic acid
 <213> Zea mays

<400> 478

gggaagcaaa gttaaatatg agcttgacaa gaaaactgga ctgattaagg ttgatcgagt 60
 cctataactca tcagttgtat accctcacia ttatgggttc gttccaagga ctctttgtga 120
 agacaatgac ccattggatg tgttggctct gatgcaggag cctgttattc ctggttcggt 180
 cctgcgagca agagcaatcg gccttatgcc catgattgac cagggtgaaa aggatgacaa 240
 gataatagca gtctgtgctg atgatcctga atacgtcac tacaacgaca tcagtgaagt 300
 gtcttctcat cgctgcaag agatcaagcg gttctttgaa gattattaga agaatgaaga 360
 tt 362

<210> 479
 <211> 410
 <212> nucleic acid
 <213> Zea mays

<400> 479
 gacccaatgg atgtgttggc cctgatgcag gagcctgttg ttcttggttc gttcctgaga 60
 gctagagcaa ttggccttat gcccatgatt gaccaggggtg aaaaggatga caagataata 120
 gcagtatgtg ctgacgatcc tgaataccgt cactacaacg acatcagcga gctgtctcct 180
 caccgcctgc aagagatcaa gcgcttcttt gaagattaca agaaaaacga gaacaaagaa 240
 gtgcagttg atgcattctt gcccgcgaca acagctcaag aagccattca gtactccatg 300
 gacctgtatg ccagtatat tttgcaaagc ttgaggcagt agattgcaag caacaattta 360
 tctatcatgc gtcttggtac ggggcgtgat ttaataagc cgaatcgctt 410

<210> 480
 <211> 373
 <212> nucleic acid
 <213> Zea mays

<400> 480
 gctcctctcc actttccaca ttccagttcc actccgactg cgctgccggt cgccgactcc 60
 gaaactccga cagtcagacc acaaggctct gtgcggggtc cacagaagga tgagtgaaga 120
 ggataagact gctgcttctg ctgagcagcc gaagagggcc cctaagctca atgaaaggat 180
 cctctcttct ctgtccagga ggtccgtagc tgctcatcca tggcatgac ttgagatcgg 240
 tctgatgct cctgctgttt tcaatgttgg tggtgagatc acacagggat gcaaagctta 300

atatgaactt gacaagaaaa ccggactgat taaggggtgat cgagtcctgg acttatcagt 360
tgtataccct tac 373

<210> 481
<211> 428
<212> nucleic acid
<213> Zea mays

<400> 481

cccactctcc gaaggactct ttgtgaatac aatgacccaa tggatgtgtt ggtcctgatg 60
catgagcctg ttgttcctgg ttcgttcctg agagctagag caattggcct tatgcccattg 120
attgaccagg gtgaaaagga tgacaagata atagcagtat gtgctgacta tcctgaatac 180
cgtcactaca acgacatcag cgagctgtct cctcaccgcc tgcaagagat caagcgcttc 240
tttgaagatt acaagaaaaa cgagaacaaa gaagtcgcag ttgatgcatt cttgcccgcg 300
acaacagctc aagaagccat tcagtactcc atggacctgt atgccagta tattttgcaa 360
agcttgaagc agtagattgc aagcaacaat ttatctatca tgcgtcttgg atcggggcgt 420
gatttttaa 428

<210> 482
<211> 384
<212> nucleic acid
<213> Zea mays

<400> 482

aggtcaatac aacgacatca gcgagctgtc tcctcaccgc ctgcaagaga tcaagcgctt 60
ctttgaagat tacaagaaaa acgagaacaa agaagtcgca gttgatgcat tcttgcccgc 120
gacaacagct caagaagcca ttcagtactc catggacctg tatgccagat atattttgca 180
aagcttgagg cagtagattg caagcaacaa tttatctatc atgcgtcttg gatgggggcg 240
tgattttaat aagccaaatc gcttgctata ttgggaacct tggaattgag aacagcgcca 300
ctagctgtga ttcgctcctt tctcgtaaaa ttatcatatg aataggccaa gtccatacgt 360
ttaccgtgtg gcgctctgtc agtc 384

<210> 483
<211> 435
<212> nucleic acid

<213> Zea mays

<400> 483

ggtttgcagg cgttgtcttc cggatttttg tccactacac tggtcagcct cttcttggag 60

ctaaagttgt agcctccatg ctgatgtttg cgacgggtcg tgggattctc atggcactct 120

tcttgaacac tgctggcggc gcctgggata atgcacagaa gtacattgag actggcgctc 180

ttggtggcaa gggcagcgag tcccacaagg ctgcggttac tggcgacacg gttggagacc 240

cattcaaaga cactgctgga ccgtcgctgc atgttcttat caagatgctc gccacaatca 300

cgctgggtcat ggctccgata ttcttgtgat taaccaacca ctcacatcaagc ttgctattaa 360

ccctgcggag atgtacctat gcgaccaggt agatgagggtg tgtgtgtgtg tgtgttacct 420

gcatgtgatg atgta 435

<210> 484

<211> 322

<212> nucleic acid

<213> Zea mays

<400> 484

cggacgcgtg cgctcacgtg gttgagtctc ctatttgcag caaggttaag tacgacggcg 60

acagggcatc tggctctgatc aagggtggacc gtgttcttta ttctctgtt gtttaccac 120

ataactatgg cttcattcca ctgcacactc tgtgaggata acgacccccct ggatgtcctc 180

atactgatgc aggaacaagt tgtccctgtg tgattcctgc gagctcgtgc tattgggctc 240

atgcctatga tcgatcaggt ctagtgtctt cgtcacctga tcgcatagtg cttgctatgt 300

ttaccttagg ccatatattt tt 322

<210> 485

<211> 441

<212> nucleic acid

<213> Zea mays

<220>

<221> unsure

<222> (190), (198), (250)

<223> unsure at all n locations

<400> 485

gggacaacgc caagaagtac attgaggctg gagtttcaga gcatgccaa acccttggcc 60

accctgaatt ccgtcactac acggacatca cggacctccc accgcatcgc cttcaagaga 300
 tccgcgcgtt ttttgaagat tataaaaaga acgaaaataa ggaggtcgca gtgaatgagt 360
 tcctgccagc gaaagatgcc atcaacgcaa tcaagtactc gatggacctg tatggctcat 420
 acgtcatcga aagcctgagg aagtgatctc cagctgcttg attgtggttg tggatgctac 480
 a 481

<210> 488
 <211> 416
 <212> nucleic acid
 <213> Zea mays

<400> 488

cccacgcgtc cgcattccatg tccaggagggt ctgttgctgc acacccttgg catgatctgg 60
 agatagggtcc tgggtgctcca accatattca actgcgtcat tgagatacca aggggcagca 120
 aggttaaata tgaacttgac aagaaaactg gactgatcaa ggtggaccgt gtgctgtatt 180
 catcagttgt ttaccctcac aactatggat tcattcctcg cacgctttgt gaagacagtg 240
 atcctttgga tgtactgggt ataatgcagg agcctgttat ccagggtgt ttcctacgtg 300
 cgaaggccat cggccttatg ccgatgattg atcagggaga ggcagatgac aagatcattg 360
 cagtgtgcgc tgatgatccc gagtacaggc attacaatga tatcaaggag ctccca 416

<210> 489
 <211> 400
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (303), (368), (381)
 <223> unsure at all n locations

<400> 489

cccacgcgtc cgtggattca ttcctcgcac tctttgtgaa gacagtgatc ctttggatgt 60
 actggttata atgcaggagc ctgttatccc aggtgtttc ctacgtgcga aggctatcgg 120
 ccttatgccg atgattgatc agggagaggc agatgacaag atcattgcag tgtgcgctga 180
 tgatcccagag tacaggcatt acaatgatat caaggagctc ccacctcacc gcttggctga 240

aatcaggcgc ttcttcgagg actacaagaa gaatgagaac aaggaggttg ctgtgaacga 300
 ctntctacca gcgagcgccg cttatgaagc catacagcac tctatggatc tgtatgctac 360
 atacatcngt gagggcctga ngaggtaaga ttctgatggc 400

<210> 490
 <211> 457
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (425)
 <223>

<400> 490

acgctttccc cgtcggcgcc tactcagatt taattcggac gccgccgccg ccgctgaccc 60
 aggggggtctt gatggcgccc gctgtagaag ccgttaagga gacaggctcg ttccagaagg 120
 ttctgcctt gaacgaaagg atactgtcat ccatgtccag gaggtctgtt gctgcacacc 180
 cttggcatga tctggagata ggtcctggtg ctccaaccat attcaactgc gtcattgaga 240
 taccaagggg cagcaagggt aaatatgaac ttgacaagaa aactggactg atcaaggtgg 300
 accgtgtgct gtattcgtca gttgtttacc ctcacaacta tggattcatt cctagcactc 360
 tctgtgaaga cagtgatcct ttggatgtac tggttataat gcatgagcct gttatcccat 420
 gctgnttctt acgtgcgaag gctatcggcc ttatgcc 457

<210> 491
 <211> 445
 <212> nucleic acid
 <213> Zea mays

<400> 491

cactgatcaa ctgcaacgca atgacgagac tcatgggtcg acgcaagact ctagagtga 60
 tgctatcagc cttatgccga tgattgatca gggagaggca gatgacaaga tcattgcagt 120
 gtgcgctgat gatcccgagt acaggcatta caatgatata aaggagctcc cacctcaccg 180
 cttggctgaa atcaggcgct tcttcgagga ctacaagaag aatgagaaca aggaggttgc 240
 tgtgaatgac tttctaccag cgagcgccgc ttatgaagcc atacagcact ctatggacct 300
 gtatgctaca tacatcggtg agggcctgag gaggtatgat tctgatggct aggaaagggtg 360

gggaggatgt tgacgaaaaa ctgggagacc atttaccgca tggaacgagt accggttatta 420
 ttttatttgt gtcgtgtata ctgct 445

<210> 492
 <211> 411
 <212> nucleic acid
 <213> Zea mays

<400> 492

acgctttccc cgtcggcgcc tcctcagatt taatttggac gccgtcggcg ccgctgaccc 60
 aggtgggtctt gatggcgccc gctgtagaag ccgtgaagga gacaggctcg ttccatatgg 120
 ttctgcctt gaacgaaagg atactgtcat ccatgtccag gaggtctgat gctgcacacc 180
 cttggcatga tctggagata gcgtcctggt gcttcaacca tattcaactg cgtcattgag 240
 ataccaaggg gcagcaaggt taaatatgaa cttgacaaga aaactggact gatcaagggtg 300
 gaccgtgtgc tgtattcgac agttgtttac cctgacaact atggattcat tcctcgcaact 360
 ctttgccaag acagtgatcc ttttgatgta ctgggtatta ttcaagaacc t 411

<210> 493
 <211> 423
 <212> nucleic acid
 <213> Zea mays

<400> 493

atcaggcgct tctttagtgc ctcgaagaag cgcctgattt cagccaagcg gtgagggtggg 60
 agtccttga tatgattgta atgcctgtac tcgggatcat cagcgcacac tgcaatgatc 120
 ttgtcatctg cctctccctg atcaatcatc ggcataaggc cgatagcctt cgcacgtagg 180
 aaacagcctg ggataacagg ctcttgcatt ataaccagta catccaaagg atcactgtct 240
 tcacaaagag tgcgaggaat gagaacaagg aggttgctgt gaacgacttt ctaccagcga 300
 gcgccgctta tgaagccata cagcactcta tggatctgta tgctacatac atcgttgagg 360
 gcctgaggag gtaggattct gatggctagg aaagtgggga ggatgttgac gaaaaactgg 420
 gag 423

<210> 494
 <211> 340

ggccatttct ttggatgacc cgaaagcatc tcttgtgaac gacgtggatg atgttgagaa 60
gcattttccg gggacactga ctgccatcag agactgggtc agagactaca agatacctga 120
tggaaagcct gccaaacaaat ttggtctcgg caacaagccc gcaagcaagg aatacgccct 180
gaaggtcatt caagagacca acgaatcatg ggagaaattg gtaaagagaa atattcccgc 240
tggagagctc tcgttggcct gattttggcc catggaagcc accacattct tttgaactgc 300
tttcgtgagc atgtcgtttt gtatgctgtg accatgcttc ttcgtttgca ttccaaacct 360
tttttacgaa ctgtttaaca aaaatgatct tgtcggataa ataatgattc tgggtcgag 419

<210> 497
<211> 428
<212> nucleic acid
<213> Zea mays

<400> 497
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ataatgatcc tgttgatggt gttgagatag gtgaaagacg tgccaatgtc ggggacgttc 120
ttaaggttaa gccattggca gcttttagcaa tgattgatga gggagagctt gactggaaaa 180
ttgtggccat ttctttggat gacccgaaag catctcttgt gaacgacgtg gatgatgttg 240
agaagcattt tccggggaca ctgactgcca tcagagactg gttcagagac tacaagatac 300
ctgatggaaa gcctgccaac aaatttggtc tcggcaacaa gcccgcaagc aaggaatacg 360
ccctgaaggt cattcaagag accaacgaat catgggagaa attggtaaag agaaatattc 420
ccgctgga 428

<210> 498
<211> 313
<212> nucleic acid
<213> Zea mays

<400> 498
ccaaggagct cgcgggaggc ctgcagcagc ggcgggccct gtaccagccc cgcctcccgc 60
catgcctcca gggaccgacg gtaagggcgg agtacggtga cgcgaccaca accatcgatc 120
ccacctgtgc ccaagccgtc gcgcaggcct tccgcacac ctttggccag ccgctcgtca 180
tcttcgtcgc gccggccgcc ggcgccggcg ccgtagagg agcgccaccc gatcaggggtg 240

ggcgtggtgt tctctgggag gcagtcgccg ggatggcaca acgtcgtctg gggcctccat 300
gacgcactta aag 313

<210> 499
<211> 256
<212> nucleic acid
<213> Zea mays

<400> 499

cccacgcgtc cggatcagag gaggcacccg tgaccaaaga tcgagtagcc aagaagaaga 60
gagatgaacg ccgacttcgg cgcgccaag gagctcgcgg gaggcctgca gcagcggcgg 120
gccctctacc agccccgcct cccgccatgc ctccaggagc cgacggtaag ggcggagtac 180
ggtgacgcga ccacaacat agatcccacc tgtgccaag ccgtcgcgca ggccttcccg 240
cacacctttg gccagc 256

<210> 500
<211> 277
<212> nucleic acid
<213> Zea mays

<400> 500

cccacgcgtc cggaacagac gtttgaagga gggcacttac aaaggaaaga aagttaatgc 60
aatctgtcac ttctttggct accaagctag gggagcactg cttccaagt ttgactgcga 120
ttatgcctat gtcttggggc atgtgtgcta ccacatcata gctgccggtt tgaacgggta 180
catgggcaca gtgacaaatg ttaagagtcc agtgaacaag tggcgatgtg gtgcggctcc 240
tatttcgtct atgatgactg tgcagcgatg gtcgcgt 277

<210> 501
<211> 132
<212> nucleic acid
<213> Zea mays

<400> 501

cgagacgcgt gggagagcag gtcaatggtg ctatggctag ttgccaagct ttgaagttgg 60
atgctctggt tatcactgga ggtgtcactt ccaacactga tgctgctcaa cttgccgaga 120
catttgcgtga gg 132

<210> 505
 <211> 255
 <212> nucleic acid
 <213> Zea mays

<400> 505

cagctttctc agattgaaga ccagaagaac tttctacccc agttagttga gactgaaatg 60
 gacagacttt tgaaggaggg cacttacaaa ggaaagaagt ttaatgcaat ctgtcacttc 120
 tttggctacc aagctagggg agcactgcct tccaagtttg actgcgatta tgcctatgtc 180
 ttggggcatg tgtgctacca catcatagct gccggtttga acggttacat ggccacagtg 240
 acaaatgtta agagt 255

<210> 506
 <211> 421
 <212> nucleic acid
 <213> Zea mays

<400> 506

ctttttgttg gaagatgtct acaggaaccc aagcccgggt cagtttgaag ggccaagtgc 60
 ccattcaaag cctatgtgag ttgtccttga aggttcagaa ctttttggcc ggattaaaaa 120
 agttcaggat tccttggaag aggtgaaaag gattgtgaac cctgggtgct cgcaggatgt 180
 tcttaaagcg gcgctgagtg ccatgtcttc tgtgacggaa aactgaaca tcatgacttc 240
 atcttctacc ggccagactc cactgagtca ttaggtacca tttcatggta tggatcataa 300
 tccccacttt tttcagtggg ggcgattaac gagtttagga acagcaaccc tggatcata 360
 cgggttatcc tttttgtagc cttttggaga gttctatcgg ttttggattc ggtagtttat 420
 g 421

<210> 507
 <211> 363
 <212> nucleic acid
 <213> Zea mays

<400> 507

gcattgtgaa gcccggtgct tcgcaggatg tccttaaagc agcggtaagc gccatggctt 60
 ctgtgacgga gatgttgacc atcatgtctt ccctttcatt tagtggacag gcgaccatct 120

ggaagagatc gcgagatag agaagatgca tgaactcatc aagaccacaca acttggttcgg 60
gcagttccgc tggatctctg ccagacaaa cagggcccggt aacggcgagc tctatcgcta 120
catcgctgat acccatgggtg ctttcgtaca gccggccttc tatgaagcgt tcggtctcac 180
cgtcgttgaa gccatgacct gtggacttcc tacttttcgcy acgctccatg gagggccagc 240
tgagatcata gagcatggcg tctcgggctt ccacattgac ccgta 285

<210> 514
<211> 112
<212> nucleic acid
<213> Zea mays

<400> 514

gtccatttga tttgcgttca ctgcgttgcy tttccttgga ggggattggt ctctcctctc 60
catgggattg gaggtccctc cttcttctcc tctctctctc agatgaacgc ct 112

<210> 515
<211> 135
<212> nucleic acid
<213> Zea mays

<400> 515

gtccagggg agacaatggt gaacttggga tcgaaaaccg acaagagact cactgctcat 60
ccagatcgag agtcatctaa ggacgtcaga ctcgcacact cggctagaca gaaagcgtca 120
ctccgagggg ccacg 135

<210> 516
<211> 297
<212> nucleic acid
<213> Zea mays

<400> 516

ataagaaatg gatatacaaga tttgatgtgt ggccatatct ggaaacattt gctgaggatg 60
ctgctggtga aattgctgct gaattacaag gtactccaga cttcataatt ggaaactaca 120
gtgatggaaa tcttgtggca tcgttgctat cttacaagat ggggaattacc cagtgcaca 180
ttgctcatgc tctggaaaag actaagtatc cagattcaga catattttgg aagaatttcg 240
atgagaagta ccatttctcc ttcagttcac ggctgatata attgctatga acaatgc 297

<210> 517
 <211> 202
 <212> nucleic acid
 <213> Zea mays

 <400> 517

 tagcactcgt ttccaggtat gttcaccagg gcaaggggaat gcttcatcgc catcagctgc 60
 ttgcggagtt tgatgccctg tttggatagt gacaaggaga agtatgcacc ctttgaagac 120
 attcttcgtg ctgctcagga agcaattgtg ctccccccat gggttgcact tgctatgggg 180
 ccaagtccgg ttgtctggga tt 202

<210> 518
 <211> 346
 <212> nucleic acid
 <213> Zea mays

 <400> 518

 tcgtatccca catggataca ttggacaagg taatgtatta ggcttgccag acacacagag 60
 gatagatcgt ctatatactg gaccaagttc gtgcactagt aaatgggacg gctctacgtt 120
 tacagccaca agggcttgat gtttccccaa agattcacat tgctagtcgg ctgatcatag 180
 atggagtagg tagatcatgc aatcagcggg ttgagagagt tagtggcaca cagcatactt 240
 acatattacg agttcacttc tgagatgaaa atgggatact tatgaagtgg atatcaagat 300
 tatgatgaga ggcgatatct ggagacatth gctgaggatg ctgctg 346

<210> 519
 <211> 62
 <212> nucleic acid
 <213> Zea mays

 <400> 519

 ccgttctacg acacgttcgg cctgctgtgt cgagtcatac gtcggctgca agatcggctg 60
 ca 62

<210> 520
 <211> 250
 <212> nucleic acid
 <213> Zea mays

<400> 520
 ggacaccgtg gggcagtag agtcccacat cgcgttcact cttcctgggc tctaccgtgt 60
 ccttgcttcc cgcgatttct tggaaatgtgc tggatgatgat gaaatcgggtg tggttcatgg 120
 caataagggtc agctgtgaac tggcaagaga agtgggtactg gctgtacgag tcccacatcg 180
 cgttcactct tcttggggtc taccgtgtcg tccatggcat cgatgttttc gatcccaagt 240
 tcaacattgt 250

<210> 521
 <211> 142
 <212> nucleic acid
 <213> Zea mays

<400> 521
 catttccgat ggacttcgac atggagtgc attccttgct ctggaacaac ttggacgagg 60
 agagtttgta ccccttgctg aacttcctca aggtcataa ctacaagggc acgacgatga 120
 tgttgaatga cagaatccaa ag 142

<210> 522
 <211> 264
 <212> nucleic acid
 <213> Zea mays

<400> 522
 actttcgcga cgtcccatgg agggccagct gagatcatag agcatggcgt ctcgggcttc 60
 cacattgacc cgtaccaccc cgagcaggct gctaactctga tggccgactt cttcgagcgg 120
 tgcaagcaag acccagatca ctgggtgaaa atatctggag cagggctgca gcgcatatac 180
 gagaagtaca catggaagat ctactcagag aggttgatga cactggccgg ggtctacggt 240
 ttctggaagt acgtgtcgaa gctc 264

<210> 523
 <211> 310
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (87)
 <223>

<400> 523

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cattgctcat gctctggaaa agactanata tccagattca gacatatttt ggaagaactt 120

cgatgagaag taccatttct cctgtcagtt cactgctgat ataattgcta tgaacaatgc 180

tgattttatc atcaccagca cataccaaga aattgctgga agcaaaaata ctggttgaca 240

gtatgagagt catactgctt ttactctgcc tgggtctgtac cgagttgtcc atgggatcga 300

tgtcttcgat 310

<210> 524

<211> 181

<212> nucleic acid

<213> Zea mays

<400> 524

atgaacaatg ctgattttat catcaccagc acataccaag aaattgctgg aagcaaaaat 60

actggttgac agtatgagag tcatactgct tttactctgc ctgggtctgta ccgagttgtc 120

catgggatcg atgtcttcga tccaaagttc aatatagtct ctctctggagc tgacatgtcc 180

a 181

<210> 525

<211> 148

<212> nucleic acid

<213> Zea mays

<400> 525

cacataccaa gaaattgctg gaagcaaaaa tactgttgga cagtatgaga gtcatactgc 60

ctttactctg cctgggtctgt accgagttgt ccatgggatt gatgtcttcg atccaaagtt 120

caatatagtc tctctctggag ctgacatg 148

<210> 526

<211> 283

<212> nucleic acid

<213> Zea mays

<400> 526

ctcgagcccc aaagttcaat atagtctctc ctggagctga catgtccata tactttccac 60

<210> 530
 <211> 293
 <212> nucleic acid
 <213> Zea mays

 <400> 530

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 tgtcatcccc cacatgggtt gcaattgcca tccgccctag gcctgggtgc tgggagtatg 120
 tgaggggtcaa cgtcagttag ctcgctgttg aggagctgag agttcctgag tacctgcagt 180
 tcaaggaaca gcttgtggaa gaaggcccca acaacaactt tggtcttgag ctggactttg 240
 agccattcaa tgcctccttc ccccgctcct ctctgtcaaa gtccattggc aat 293

<210> 531
 <211> 308
 <212> nucleic acid
 <213> Zea mays

 <400> 531

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 gttgcacttg ccatccgccc taggcctggt gtccgggagt atgtgaaggt caacgtcagt 120
 gggctcgtg ttgaggagct gagagttcct gagtacctgc agttcaagga acagcttgtg 180
 gaagaaggcc ccaacaacaa ctttgttctt gagctggact ttgagccatt caatgcctcc 240
 ttccccgctc cttctctgtc aaagtccatt ggcaatggcg tgcagttcct caacaggcac 300
 ctgtcatc 308

<210> 532
 <211> 170
 <212> nucleic acid
 <213> Zea mays

 <400> 532

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 cccatcgatg tgtttttggt cggttctctc gtcagatctg tataaatagg cgctccctt 120
 ctccgccatt cctcggctct ctgaagcggt tcagttcatc gattcagttc 170

<210> 533
 <211> 303
 <212> nucleic acid
 <213> Zea mays

 <400> 533

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 tgccgggtac aatgatgtca acaagtccaa ggacagggaa gagatcgagg agatagagaa 120
 gatgcatgaa ctcatcaaga ccacaaactt gttcgggcag ttccgctgga tctctgcca 180
 gacaaacagg gcccgtaacg gcgagctcta tcgtacatc gctgataccc atgggtgcttt 240
 cgtacagccg gccttctatg aagcgttcgg tctcacgctc gttgaggcca tgacctgtgg 300
 act 303

<210> 534
 <211> 365
 <212> nucleic acid
 <213> Zea mays

 <400> 534

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 ccaaaccgag aacacggagc acaagttcgt tctgaacgac aggaacaagc caatcatctt 120
 ctccatggct cgtctcgacc gtgtgaagaa cttgactggg ctggtggagc tgtacggccg 180
 gaacaagcgg ctgcaggagc tggatgaacct cgtggctcgtc tgcggcgacc atggcaaccc 240
 ttccaaggac aaggaggagc aggcagagtt caagaagatg tttgacctca tcgagcagta 300
 caacctgaac gggcacatcc gctggatctc cgcccagatg aaccgcgtcc gcaacggcga 360
 gctgt 365

<210> 535
 <211> 330
 <212> nucleic acid
 <213> Zea mays

 <400> 535

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 tgcgcttgag aaaactaagt accctaactc cgacctctac tggaagaagt ttgaggatca 120
 ctaccacttc tcgtgccagt tcaccactga cttgattgca atgaaccatg ccgacttcat 180

aggcactcct gtacagccaa accgagaaca cggagcacaa gttcgttctg aacgacagga 60
acaagccaat catcttctcc atggctcgtc tcgaccgtgt gaagaacttg actgggctgg 120
tggagctgta cggccggaac aagcggctgc aggagctggt gaacctcgtg gtcgtctgcy 180
gcgaccatgg caacccttcc aaggacaagg aggagcaggc cgagttcaag aagatgtttg 240
acctcatcga gcagtacaac ctgaacgggc acatccgctg gatctccgcc cagatgaacc 300
gcgtccgcaa cggcgagctg ta 322

<210> 539
<211> 337
<212> nucleic acid
<213> Zea mays

<400> 539

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cgcgatttga agtctggccg tacctggaga cttacactga tgacgtggcg catgagattg 120
ctggagagct tcaggccaat cctgacctga tcatcggaac ctacagtgc ggaaaccttg 180
ttgcgtgttt gctcgccac aagatgggtg ttactcactg taccattgcc catgcgcttg 240
agaaaactaa gtaccctaac tccgacctct actggaagaa gtttgaggat cactaccact 300
tctcgtgcc a gttcaccact gacttgattg caatgaa 337

<210> 540
<211> 320
<212> nucleic acid
<213> Zea mays

<400> 540

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cgcgctatgg agaacgaaat gctgctgagg atcaagcagt gtggtcttga catcacgccg 120
aagatcctta ttgtcaccag gttgctccct gatgcaactg gcaccacctg tggccagcgc 180
cttgagaagg tccttggcac cgagcactgc catatccttc gcgtgccatt cagaacagaa 240
aacggaatcg ttgcgaagtg gatctcgca tttgaagtct ggccgtacct ggagacttac 300
actgatgacg tggcgcatga 320

<210> 541
 <211> 315
 <212> nucleic acid
 <213> Zea mays

 <400> 541

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 gtccacccta caagctgata ccccatactc tgaatttcac cacagggttcc aggaacttgg 120
 tctggagaag gggtgggggtg attgcgctaa gcgtgcacag gagactatcc acctcctctt 180
 ggacctcctg gagggccccag atccgtccac cctggagaag ttccttggaa cgatccccat 240
 ggtgttcaat gtcgttatcc tctccctca tggttacttc gctcaagcta atgtcttggg 300
 ttacctgac accgg 315

<210> 542
 <211> 327
 <212> nucleic acid
 <213> Zea mays

 <400> 542

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 cgtgcggtct gccaacgatc gcgacctgcc atggtggccc tgcagagatc atcgtggacg 120
 gggatatctgg cctgcacatt gacccttacc acagcgacaa ggccgcggat atcctgggtca 180
 acttctttga caaatgcaag gcagatccga gctactggga caagatctca cagggcggcc 240
 tgcagagaat ctatgagaag tacacctgga agctctactc cgagaggctg atgacctga 300
 ccggcgtgta cgggttctgg aagtacg 327

<210> 543
 <211> 318
 <212> nucleic acid
 <213> Zea mays

 <400> 543

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 atgacgtggc gcatgagatt gctggagagc ttcaggccaa tcctgacctg atcattggaa 120
 actacagtga cggaaacctt gttgcgtgtt tgctcgccca caagatgggt gttactcact 180
 gtaccattgc ccatgcgctt gagaaaacta agtaccctaa ctccgacctc tactggaaga 240

<212> nucleic acid
<213> Zea mays

<400> 549

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accgcgttgt ccacggcatt gatgtgttcg accccaagtt caacatcgtg ttccttggcg 60
catctacttc ccgtacaccg agtcgcacaa gaggtgacc tcccttcacc 120

cggagattga ggagctcctg tacagccaaa ccgagaacac ggagcacaag ttcgtttctga 180
acgacaggaa caagccaatc atctttctcca tggctcgtct cgaccgtgtg aagaacttga 240
ctgggctggg ggagctgtac ggccggaaca agcggctgca ggagctgggtg aacctcgtgg 300
tcgtctgcgg cgaccatggc 320
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<210> 550
<211> 330
<212> nucleic acid
<213> Zea mays

<400> 550

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aggccaagcc tgaccttatac attggcaact acagcgatgg caacctagtc gctactctgc 120
tcgcgcacaa gttgggagtc actcagtgtg ccatcgctca tgccttggag aaaaccaaata 180
acccaactc ggacatatac ttggacaaat tcgacagcca gtaccacttc tcttgccagt 240
tcacagctga ccttattgcc atgaaccaca ctgatttcat catcaccagc acattccaag 300
aaatcgcggg aagcaaggac accgtggggc 330
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<210> 551
<211> 318
<212> nucleic acid
<213> Zea mays

<400> 551

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catctttctg atggcgcgtc tcgaccgctg gaagaacatg acaggcctgg tcgagatgta 120
cggcaagaac gcgcgcctga gggagctggc gaacctcgtg atcgttgccg gtgaccacgg 180
caaggagtcc aaggacaggg aggagcaggc ggagttcaag aagatgtaca gcctcatcga 240
cgagtacaag ttgaagggcc atatccggtg gatctcggcg cagatgaacc gcgtccgcaa 300
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cggggagctg taccgcta

318

<210> 552
<211> 311
<212> nucleic acid
<213> Zea mays

<400> 552

aagtacccta actccgacct ctactggaag aagtttgagg atcactacca cttctcgtgc 60
cagttcacca ctgacttgat tgcaatgaac catgccgact tcatcatcac cagtaccttc 120
caagagatcg ccggaacaaa ggacaccgtc ggccagtagc agtcacacat ggcgttcaca 180
atgcctggcc tgtaccgctg tgtccacggc attgatgtgt tcgaccccaa gttcaacatc 240
gtgtctcctg gcgcggacct gtccatctac ttcccgtaga ccgagtcgca caagaggctg 300
acctcccttc a 311

<210> 553
<211> 320
<212> nucleic acid
<213> Zea mays

<400> 553

gttcctcaac aggcacctgt catcaaagct cttccatgac aaggagagca tgtacccttc 60
gtcgaacttc cttcgcgccc acaactacaa ggggatgacc atgatgttga acgacagaat 120
ccgcagtctc agtgctctgc aaggtgcgct gaggaaggct gaggagcacc tgtccaccct 180
acaagctgat accccatact ctgaatttca ccacaggttc caggaacttg gtctggagaa 240
gggttggggg gattgcgcta agcgtgcaca ggagactatc cacctcctct tggacctcct 300
ggaggcccca gatccgtcca 320

<210> 554
<211> 311
<212> nucleic acid
<213> Zea mays

<400> 554

gacaggaaca agccaatcat cttctccatg gtcggtctcg accgtgtgaa gaacttgact 60
gggctggtgg agctgtacgg ccggaacaag cggtgcagg agctggtgaa cctcgtggtc 120

gtctgcgggc accatggcaa cccttccaag gacaaggagg agcaggccga gttcaagaag 180
 atgtttgacc tcatcgagca gtacaacctg aacgggcaca tccgctggat ctccgcccag 240
 atgaaccgcg tccgcaacgg cgagctgtac cgctacatct gcgacaccaa gggcgccctc 300
 gtgcagcctg c 311

<210> 555
 <211> 363
 <212> nucleic acid
 <213> Zea mays

<400> 555

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 tcttcgacaa gtgacaggcg gagcgagcca ctggagcaag atctcccagg gcgggctcca 120
 gcgtatcgag gagaagtaca cctggaagct gtactcggag aggctgatga ccctcaccgg 180
 cgtgtacggg ttctggaagt acgtgtccaa cctggagagg cgcgagaccc ggcgggtacct 240
 ggagatgctg tacgcgctca agtaccgcac catggcgagc accgtgccgc tggccgtgga 300
 gggagagcct ccagcaagtg atgcgtgacg gcggccacag acctgatcga tcgatgagcg 360
 aga 363

<210> 556
 <211> 317
 <212> nucleic acid
 <213> Zea mays

<400> 556

cagaaaacgg aatcgttcgc aagtggatct cgcgatttga agtctggccg tacctggaga 60
 cttacactga tgacgtggcg catgagattg ctggagagct tcaggccaat cctgacctga 120
 tcatcgga aa ctacagtgc ggaaaccttg ttgcgtgttt gctcgccac aagatgggtg 180
 ttactcactg taccattgcc catgcgcttg aggaaactaa gtaccctaac tccgacctct 240
 actggaagaa gtttgaggat cactaccact tctcgtgcc gttcaccact gacttgattg 300
 ccatgaacca tgccgac 317

<210> 557
 <211> 310
 <212> nucleic acid

<213> Zea mays

<400> 557

cccttcaccc ggagattgag gagctcctgt acagccaaac cgagaacacg gagcacaagt 60
tcgttctgaa cgacaggaac aagccaatca tcttctccat ggctcgtctc gaccgtgtga 120
agaacttgac tgggctgggtg gagctgtacg gccggaacaa gcggctgcag gagctgggtga 180
acctcgtggg cgtctgcggc gaccatggca acccttccaa ggacaaggag gagcaggccg 240
agttcaagaa gatgtttgac ctcatcgagc agtacaacct gaacggggcac atccgctgga 300
tctccgcca 310

<210> 558

<211> 311

<212> nucleic acid

<213> Zea mays

<400> 558

cttgggtctgg agaaggggtg ggggtgattgc gctaagcgtg cacaggagac tatccacctc 60
ctcttgacc tcttgaggc ccagatccg tccaccctgg agaagttcct tggaacgatc 120
cccatgggtg tcaatgtcgt tatcctctcc cctcatgggtt acttcgctca agctaattgc 180
ttgggttacc ctgacaccg aggccagggt gtctacatct tggatcaagt gcgcgctatg 240
gagaacgaaa tgctgctgag gatcaagcag tgtgggtcttg acatcacgcc gaagatcctt 300
attgtcacca g 311

<210> 559

<211> 317

<212> nucleic acid

<213> Zea mays

<400> 559

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gagaacgaaa tgctgctgaa ggatcaaagc agtgtgggtc ttaacatcac gccgaagatc 120
cttattgtca ccagggtgct cctgatgca actggcacca cctgtggcca gcgccttgag 180
aaggctccttg gcaccgagca ctgccatata cttcgcgtgc cattcagaac agaaaacgga 240
atcgttcgca agtggatctc gcgatttgac atctggccgt acctggagac ttacactgat 300

gacgtggcgc atgagat

317

<210> 560
<211> 307
<212> nucleic acid
<213> Zea mays

<400> 560

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cgacaggacc aagccaatca tcttctccat ggctcgtctc gaccgtgtga agaacttgac 120
tgggctgggtg gagctgtacg gccggaacaa gcggctgcag gagctgggtga acctcgtggt 180
cgtctgcggc gaccatggca acccttccaa ggacaaggag gagcaggccg agttcaagaa 240
gatgtttgac ctcatcgagc agtacaacct gaacgggcac atccgctgga tctccgcca 300
gatgaac 307

<210> 561
<211> 307
<212> nucleic acid
<213> Zea mays

<400> 561

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tgccgacttc atcatcacca gtaccttcca agagatcgcc ggaaacaagg acaccgtcgg 120
ccagtacgag tcacacatgg cgttcacaat gcctggcctg taccgcgttg tccacggcat 180
tgatgtgttc gaccccaagt tcaacatcgt gtctcctggc gcggacctgt ccatctactt 240
cccgtacacc gagtcgcaca agaggctgac ctcccttcac ccggagattg aggagctcct 300
gtacagc 307

<210> 562
<211> 314
<212> nucleic acid
<213> Zea mays

<400> 562

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accttattgc catgaaccac actgatttca tcatcaccag cacattccaa gaaatcgcgg 120

gaagcaagga caccgtgggg cagtaacgagt cccacatcgc gttcactctt cctgggctct 180
accgtgtcgt ccatggcatc gatgttttcg atcccaagtt caacattgtc tcccctggag 240
cagacatgag tgtttactac ccgtatacgg aaaccgacaa gagactcact gccttccatc 300
ctgaaatcga ggag 314

<210> 563
<211> 305
<212> nucleic acid
<213> Zea mays

<400> 563

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ggatctgagc acacagacat cattcgcgtt ccgttcagaa atgagaatgg catcctccgc 180
aagtggatct ctcgttttga tgtctggcca tacctggaga catacactga ggatgtttcc 240
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ggcaa 305

<210> 564
<211> 316
<212> nucleic acid
<213> Zea mays

<400> 564

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gagatcatcg tgcacggcgt gtctggctac cacatcgacc cttaccaggg cgacaaggcg 120
tcggccctgc tcgtggactt cttcgacaag tgccaggcgg acccgagcca ctggagcaag 180
atctcccagg gcgggctcca gcgtatcgag gagaagtaca cctggaagct ctactcggag 240
aggctgatga ccctcaccgg cgtgtacggg ttctggaagt acgtgtccaa cctggagagg 300
cgcgagaccc ggcggt 316

<210> 565
<211> 306
<212> nucleic acid
<213> Zea mays

<400> 565
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 gccagtacga gtcacacatg gcgttcacaa tgcctggcct gtaccgcgtt gtccacggca 120
 ttgatgtgtt cgaccccaag ttcaacatcg tgtctcctgg cgcggacctg tccatctact 180
 tcccgtagac cgagtcgcac aagaggctga cctcccttca cccggagatt gaggagctcc 240
 tgtacagcca aaccgagaac acggagccca agttcgttct gaacgacagg aacaagccaa 300
 tcatct 306

<210> 566
 <211> 310
 <212> nucleic acid
 <213> Zea mays

<400> 566
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 cagcgacaag gccgcggata tcctgggtcaa cttctttgac aaatgcaagg cagatccgag 180
 ctactgggac aagatctcac agggcggcct gcagagaatt tatgagaagt acacctggaa 240
 gctctactcc gagaggctga tgaccctgac cggcgtgtac gggttctgga agtacgtgag 300
 caacctggag 310

<210> 567
 <211> 320
 <212> nucleic acid
 <213> Zea mays

<400> 567
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 gcatgagatt gctggagagc ttcaggccaa tcctgacctg atcatcggaa actacagtga 120
 cggaaacctt gttgcgtgtt tgctcgccca caagatgggt gttactcact gtaccattgc 180
 ccatgcgctt gagaaaacta agtaccctaa ctccgacctc tactggaaga agtttgagga 240
 tcactaccac ttctcgtgcc agttcaccac tgacttgatt gcaatgaacc atgccgactt 300
 catcatcacc agtaccttcc 320

<210> 568
 <211> 311
 <212> nucleic acid
 <213> Zea mays

 <400> 568

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 ctggatctcc gccagatga accgcgtccg caacggcgag ctgtaccgct acatctgcga 120
 caccaagggc gccttcgtgc agcctgcttt ctacgagget ttcgggctga cggtggttga 180
 ggccatgacc tgcggcctgc ccacgttcgc caccgcctac ggcgtccggc cgagatcatc 240
 gtgcacggcg tgtctggcta ccacatcgac ccttaccagg gcgacaaggc gtcggccctg 300
 ctctgggact t 311

<210> 569
 <211> 313
 <212> nucleic acid
 <213> Zea mays

 <220>
 <221> unsure
 <222> (32)
 <223>

 <400> 569

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 gagtacctgc agttcaagga acagcttgtg gaagaaggcc ccaacaacaa ctttgttctt 120
 gagctggact ttgagccatt caatgcctcc tcccccgtc cttctctgtc aaagtccatt 180
 ggcaatggcg tgcagttcct caacaggcac ctgtcatcaa agctcttcca tgacaaggag 240
 agcatgtacc ccttgcctcaa ctcccttcgc gccacaaact acaaggggat gaccatgatg 300
 ttgaacgaca gaa 313

<210> 570
 <211> 309
 <212> nucleic acid
 <213> Zea mays

 <400> 570

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gccatgacct ggggcctgcc cacgttcgcc accgcctacg gcgtccggcc gagatcatcg 120
 tgcacggcgt gtctggctac cacatcgacc cttaccaggg cgacaaggcg tcggccctgc 180
 tcgtggactt cttcgacaag tgccaggcgg acgatgccac tggagcaaga tctcccaggg 240
 cgggctccag cgtatcgagg agaagtacac ctggaagctg tactcggaga ggctgatgac 300
 cctcacgg 309

<210> 571
 <211> 305
 <212> nucleic acid
 <213> Zea mays

<400> 571

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 tccccatggt gttcaatgtc gttatcctct cccctcatgg ttacttcgct caagctaattg 180
 tcttgggtta cctgacacc ggaggccagg ttgtctacat cttggatcaa gtgcgcgcta 240
 tggagaacga aatgctgctg aggatcaagc agtgtgggtt tgacatcacg ccgaagatcc 300
 ttatt 305

<210> 572
 <211> 305
 <212> nucleic acid
 <213> Zea mays

<400> 572

cactgaggat gtttccagtg aaataatgaa agaaatgcag gccaaagcctg accttatcat 60
 tggcaactac agcgatggca acctagtcgc cactctgctc gcgcacaagt tgggagtcac 120
 tcagtgtacc atcgctcatg ccttggagaa aaccaatac cccaactcgg acatatactt 180
 ggacaaattc gacagccagt accacttctc ttgccagttc acagctgacc ttattgccat 240
 gaaccacacc gatttcatca tcaccagcac attccaagaa atcgcgggaa gcaaggacac 300
 cgtgg 305

<210> 573
 <211> 306

<212> nucleic acid
<213> Zea mays

<400> 573

gacaccgtcg gccagtagca gtcacacatg gcgttcacaa tgccctggcct gtaccgcgtt 60
gtccacggca ttgatgtgtt cgaccccaag ttcaacatcg tgtctcctgg cgcggacctg 120
tccatctact tcccgtacac cgagtcgcac aagaggttga cctcccttca cccggagatt 180
gaggagctcc tgtacagcca aaccgagaac acggagcaca agttcgttct gaacgacagg 240
aacaagccaa tcatctttct catggctcgt ctcgaccgtg tgaagaactt gactgggttg 300
gtggag 306

<210> 574
<211> 332
<212> nucleic acid
<213> Zea mays

<400> 574

ctcggagagg ctgatgacct tcaccggcgt gtacgggttc tggaagtacg tgtccaacct 60
ggagacgcgc gagaccggc ggtacctgga gatgctgtac gcgctcaagt accgcaccat 120
ggcgagcacc gtgccgctgg ccgtggaggg agagccctcc agcaagtgat gcgtgacggc 180
ggccacagac ctgatcgatc gatgagcgag agggagcact cggagtgtcg tgtcttttcc 240
cttgccattt ctttctttct tcttttctct tcccggaggg gaaaaaaaaa gagtctgcat 300
ttgctaggcg gcgggcgttc gttgctgctc tt 332

<210> 575
<211> 309
<212> nucleic acid
<213> Zea mays

<400> 575

ggttacttcg ctcaagctaa tgtcttgggt taccctgaca ccggagccag gttgtctaca 60
tcttgatca agtgcgcgt atggagaacg aaatgctgct gaggatcaag cagtgtggtc 120
ttgacatcac gccgaagatc cttattgtca ccaggttgct ccctgatgca actggcacca 180
cctgtggcca gcgacttgag aaggctcttg gcaccgagca ctgccatata cttcgcgtgc 240
cattcagaac agaaaacgga atcgctcgca agtggatctc gcgatttgaa gtctggccgt 300

acctggaga

309

<210> 576
<211> 306
<212> nucleic acid
<213> Zea mays

<400> 576

cgcggtccgca acggcgagct gtaccgctac atctgcgaca ccaagggcgc cttcgtgcag 60
cctgctttct acgaggcttt cgggctgacg gtggttgagg ccatgacctg cggcctgccc 120
acgtttgcca cagcctacgg cgggtccggcc gagatcatcg tgcacggcgt gtctggctac 180
cacatcgacc cttaccaggg cgacaaggcg tcggccctgc tcgtggactt cttcgacaag 240
tgccaggcgg acccgagcca ctggagcaag atctcccagg gcgggctcca gcgtatcgag 300
gagaag 306

<210> 577
<211> 300
<212> nucleic acid
<213> Zea mays

<400> 577

cggagcaciaa gttcgttctg aacgacagga acaagccaat catcttctcc atggctcgtc 60
tcgaccgtgt gaagaacttg actgggctgg tggagctgta cggccggaac aagcggctgc 120
aggagctggt gaacctcgtg gtcgtctgcg gcgaccatgg caacccttcc aaggacaagg 180
aggagcaggg cgagttcaag aagatgtttg acctcatcga gcagtacaac ctgaacgggc 240
acatccgctg gatctccgcc cagatgaacc gcgtccgcaa cggcgagctg taccgctaca 300

<210> 578
<211> 322
<212> nucleic acid
<213> Zea mays

<400> 578

ctcggttctg aaccagtggt cttgttgctg gtttgctcgc ccacaagatg ggtgttactc 60
actgtaccat tgcccatgcy cttgagaaaa ctaagtaccc taactccgac ctctactgga 120
agaagtttga ggatcactac cacttctcgt gccagttcac cactgacttg attgcaatga 180

accatgccga cttcatcatc accagtacct tccaagagat cgccggaaac aaggacaccg 240
tcggccagta cgagtcacac atggcggttca caatgcctgg cctgtaccgc gttgtccacg 300
gcattgatgt gttcgacccc aa 322

<210> 579
<211> 336
<212> nucleic acid
<213> Zea mays

<400> 579

ccctgatgca actggcacca cctgtggcca ggccttgag aaggtccttg gcaccgagca 60
ctgccatata cttcgcggtgc cattcagaac agaacacgga atcgctcgcc agtggatctc 120
gcgatttgaa gtctggcogt acctggagac ttacactgat gacgtggcgc atgagattgc 180
tggagagctt caggccaatc ctgacctgat catcggaac tacagtgacg gaaaccttgt 240
tgcgtgtttg ctgcccaca agatgggtgt tactcactgt accattgccc atgcgcttag 300
aacactaagt acgctaactc cgacctctac tggaag 336

<210> 580
<211> 303
<212> nucleic acid
<213> Zea mays

<400> 580

gagaatttat gagaagtaca cctggaagct ctactccgag aggctgatga ccctgaccgg 60
cgtgtacggg ttctggaagt acgtgagcaa cctggagagg cgcgagacc gccgctacat 120
cgaaatgttc tacgccctga agtaccgtag cctggcaagc caggttccgc tgccttcga 180
ttagtacggg gaaagaagaa gcccaggccg gagaaccatc gcctgcattt cgatctgttt 240
caccgcaatt cgcattgtta gtcgtgtatt ggagttatgt gtacttggtt tccaagaact 300
ttg 303

<210> 581
<211> 304
<212> nucleic acid
<213> Zea mays

<400> 581

(iii) The number of jobs of type i that are not in \mathcal{J}_i is bounded by $\frac{1}{\epsilon}$.

c 301

<210>	590
<211>	297
<212>	nucleic acid
<213>	Zea mays

<400> 590

<210>	591
<211>	299
<212>	nucleic acid
<213>	Zea mays

gccaatcatc	ttctccatgg	ctcgtctcga	ccgtgtgaag	aacttgactg	ggctggtgga	60
gctgtacggc	cggaacaagc	ggctgcagga	gctggtgaac	ctcgtggtcg	tctgcggcga	120
ccatggcaac	ccttccaagg	acaaggagga	gcaggccgag	ttcaagaaga	tgtttgacct	180
catcgagcag	tacaacctga	acgggcacat	ccgctggatc	tccgcccaga	tgaaccgcgt	240
ccgcaacggc	gagctgtacc	gctacatctg	cgacaccaag	ggcgcccttcg	tgcagcctg	299

<210>	592
<211>	299
<212>	nucleic acid
<213>	Zea mays

cttctcttgc	cagttcacag	ctgaccttat	tgccatgaac	cacaccgatt	tcatcatcac	60
cagcacattc	caagaaatcg	cgggaagcaa	ggacaccgtg	gggcagtagc	agtcccat	120
cgcgttcaact	cttctctgggc	tctaccgtgt	cgtccatggc	atcgatgttt	tcgatcccaa	180
gttcaacatt	gtctccctcg	gagcagacat	gagtgtttac	taccgtata	cggaaaccga	240
caagagactc	actgccttcc	atcctgaaat	cgaqgaqctc	atctacaqcg	acgtcgaqa	299

<210> 593
 <211> 295
 <212> nucleic acid
 <213> Zea mays

 <400> 593

 caatgcctgg cctgtaccgc gttgtccacg gcattgatgt gttcgacccc aagttcaaca 60
 tcgtgtctcc tggcgcgaggac ctgtccatct acttcccgtc caccgagtcg cacaagaggc 120
 tgacctccct tcacccggag attgaggagc tcctgtacag ccaaaccgag aacacggagc 180
 acaagtctgt tctgaacgac aggaacaagc caatcatctt ctccatggct cgtctcgacc 240
 gtgtgaagaa cttgactggg ctggtggagc tgtacggccg gaacaagcgg ctgca 295

<210> 594
 <211> 302
 <212> nucleic acid
 <213> Zea mays

 <400> 594

 ctagtcgcca ctctgctcgc acacaagttg ggagtcactc agtgtaccat cgctcatgcc 60
 ttggagaaaa ccaaataccc caactcggac atctacttgg acaagttcga cagccagtac 120
 cacttctctt gccagttcac agctgacctt attgccatga accacactga tttcatcatc 180
 accagcacat tccaagaaat cgcgggaagc aaggacaccg tggggcagta cgagtccac 240
 atcgcgttca ctcttctcgg gctctaccgt gtcgtccatg gcacgatgt tttcgatccc 300
 aa 302

<210> 595
 <211> 314
 <212> nucleic acid
 <213> Zea mays

 <400> 595

 ctcggtgcag atgaaccgag tccgcaacgg ggagctgtac cgctacattt gcgataccaa 60
 gggcgcatte gtgcagcctg cgttctacga agcgttcggc ctgactgtga tcgagtccat 120
 gacgtgcggt ctgccaacga tcgcgacctg ccatgggtggc cctgctgaga tcacgtgga 180
 cggggtatct ggctgcaca ttgaccotta ccacagcgac aaggccgcgg atatcctggt 240

accgagaaca cggagcacaa gttcgttctg aacgacagga acaagccaat catctttctcc 120
atggctcgtc tcgaccgtgt gaagaacttg actgggctgg tggagctgta cggccggaac 180
aagcggctgc aggagctggt gaacctcgtg gtcgtctcgc tgcgacatgg caacccttcc 240
aaggacaagg aggagcaggc cgagttcaag aagatgtttg acctcatcga gcagtacaac 300
ctgaacgggc acatccgctg gatctccgcc cag 333

<210> 604
<211> 322
<212> nucleic acid
<213> Zea mays

<400> 604
cggaccgtgg ctggcgcgga cctgtccatc tacttcccgt acaccgagtc gcacaagagg 60
ctgacctccc ttcacccgga gattgaggag ctctgtaca gccaaaccga gaacacggag 120
cacaagttcg ttctgaacga caggaacaag ccaatcatct tctccatggc tcgtctcgac 180
cgtgtgaaga acttgactgg gctgggtggag ctgtacggcc ggaacaagcg gctgcaggag 240
ctggtgaacc tcgtggtcgt ctgcggcgac catggcaacc cttccaagga caaggaggag 300
caggccgagt tcaagaagat gt 322

<210> 605
<211> 290
<212> nucleic acid
<213> Zea mays

<400> 605
aaacttggtc tggagaaggg ttggggtgat tgcgctaagc gtgcacagga gactatccac 60
ctcctcttgg acctcctgga ggccccagat ccgtccaccc tggagaagtt ccttggaaacg 120
atccccatgg tgttcaatgt cgttatcctc tcccctcatg gttacttcgc tcaagctaata 180
gtcttggggt accctgacac cggaggccag gttgtctaca tcttggatca agtgcgcgct 240
atggagaacg aaatgctgct gaggatcaag cagtgtggtc ttgacatcac 290

<210> 606
<211> 306
<212> nucleic acid
<213> Zea mays

<210> 609
 <211> 313
 <212> nucleic acid
 <213> Zea mays

<400> 609

cccacgcgtc cgggcacatc cgctggatct ccgcccagat gaaccgcgtc cgcaacggcg 60
 agctgtaccg ctacatctgc gacaccaagg gcgccttcgt gcagcctgct ttctacgagg 120
 ctttcggggt gacgggtggtt gaggccatga cctgcggcct gccacgctt gccaccgcct 180
 acggcggtcc ggccgagatc atcgtgcacg gcgtgtctgg ctaccacatc gacccttacc 240
 agggcgacaa ggcgtcggcc ctgctcgtgg acttcttcga caagtgccag gcggagcgag 300
 ccactggagc aag 313

<210> 610
 <211> 295
 <212> nucleic acid
 <213> Zea mays

<400> 610

gttcaacatc gtgtctctctg gcgcggacct gtccatctac ttcccgtaca ccgagtcgca 60
 caagaggctg acctcccttc acccgagat tgaggagctc ctgtacagcc aaaccgagaa 120
 cacggagcac aagttcgctt tgaacgacag gaacaagcca atcatcttct ccatggctcg 180
 tctcgaccgt gtgaagaact tgactgggct ggtggagctg tacggccgga acaagcggct 240
 gcaggagctg gtgaacctcg tggctcgtctg cggcgaccat ggcaaccctt ccaag 295

<210> 611
 <211> 310
 <212> nucleic acid
 <213> Zea mays

<400> 611

ccggaggcaa aaaaagagtc tgcttttctt aggcggcgagg cgttcgcttc tgctctttgc 60
 ttcaagagtt aaatttacct accttgtcaa ggtcttgctt catcattgat ccgggtgtcg 120
 ctttttttagt agtctgatgg actgttagta gtttgcgctt cgtcggttga gaggggaacgt 180
 tgggtgggtg ggtgtgtgtg cagtcaggcg tgggtgctccc ttgttttctt ggatgggatg 240
 ttgctccttg aataataatc gtagtggcct tggagccctt ttctgaaat aagagcagca 300

310

<400> 612

60

120

180

240

300

307

<400> 613

60

120

180

240

300

302

<400> 614

60

120

gccggaacaa gcggtgcag gagctggtga acctcggtg cgtctgcagc gaccatggca 180
 acccttccaa ggacaaggag gagcaggccg agttcaagaa gatgtttgac ctcatcgagc 240
 agtacaacct gaacgagcac atccgctgga tcatccgcc aatgaaccgc gtccgcaacg 300
 gcga 304

<210> 615
 <211> 295
 <212> nucleic acid
 <213> Zea mays

<400> 615

ataagatggt tgacctcatc gagcagtaca acctgaacgg gcacatccgc tggatctccg 60
 cccagatgaa ccgctgccgc aacggcgagc tgtaccgcta catctgcgac accaagggcg 120
 ccttcgtgca gcttgccttc tacgaggctt tcgggctgac ggtggttgag gccatgacct 180
 gcggcctgcc cacgttcgcc accgcctacg gcagtccggc cgagatcatc gtgcacggcg 240
 tgtctggcta ccacatcgac tcttaccagg gcgacaaggc gtcggccctg ctctgt 295

<210> 616
 <211> 288
 <212> nucleic acid
 <213> Zea mays

<400> 616

cggaaactac agtgacggaa accttggtgc gtggttgcgc gccacaaga tgggtgttac 60
 tcaactgtacc attgcccatt cgcttgagaa aactaagtac cctaactccg acctctactg 120
 gaagaagttt gaggatcact accacttctc gtgccagttc accactgact tgattgcaat 180
 gaaccattgc cgacttcac atcaccagta ccttccaaga gatcgccgga aacaaggaca 240
 ccgtcggcca gtacgagtca cacatggcgt tcacaatgcc tggcctgt 288

<210> 617
 <211> 301
 <212> nucleic acid
 <213> Zea mays

<400> 617

cccacgcgtc cgcacctcct cttggacctc ctggaggccc cagatccgtc caccctggag 60

aagttccttg gaacgatccc catggtgttc aatgtcgta tcctctcccc tcatggttac 120
 ttcgctcaag ctaatgtctt gggttaccct gacaccggag gccagggttg ctacatcttg 180
 gatcaagtgc gcgctatgga gaacgaaatg ctgctgagga tcaagcagtg tggctcttgac 240
 atcacgccga agatccttat tgtcaccagg ttgctccctg atgcaactgg caccacctgt 300
 g 301

<210> 618
 <211> 294
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (150)
 <223>

<400> 618
 acctgcgcc tgcccacgtt cgccaccgcc tacgggggtc cggccgagat catcgtgcac 60
 ggcgtgtctg gctaccacat cgacccttac cagggcgaca aggcgtcggc cctgctcgtg 120
 gacttcttcg acaagtgccg ggcggagcgn agccactgga gcaagatctc ccagggcggg 180
 ctccagcgta tcgaggagaa gtacacctgg aagctgtact cggagaggct gatgaccctc 240
 accggcgtgt acgggttctg gaagtacgtg tccaacctgg agaggcgcca gacc 294

<210> 619
 <211> 287
 <212> nucleic acid
 <213> Zea mays

<400> 619
 gctgtacggc cggaacaagc ggctgcagga gctggtgaac ctggtggtcg tctgcggcga 60
 ccatggcaac ccttccaagg acaaggagga gcaggccgag ttcaagaaga tgtttgacct 120
 catcgagcag tacaacctga acgggcacat ccgctggatc tccgcccaaga tgaaccgcgt 180
 ccgcaacggc gagctgtacc gctacatctg cgacaccaag ggcgccttcg tgcagcctgc 240
 tttctacgag gctttcgggc tgacggtggt tgaggccatg acctgcg 287

<210> 620

<211>	303
<212>	nucleic acid
<213>	Zea mays

<400> 620

<210>	621
<211>	298
<212>	nucleic acid
<213>	Zea mays

ccaagttcaa	catcggtgtct	cctggcgcgcg	acctgtccat	ctacttcccc	tacaccgagt	60
cgcacaagag	gctgacctcc	cttcaccccg	agattgagga	gctcctgtac	agccaaaccg	120
agaacacgga	gccacaagtt	cgttctgaac	gacaggaaca	agccaatcat	cttctccatg	180
gctcgtctcg	accgtgtgaa	gaacttgact	gggctggtgg	agctgtacgg	cgggaacaag	240
cggctgcagg	agctgggtgaa	cctcgtggtc	gtctgcggcg	accatggcaa	cccttcca	298

<210>	622
<211>	306
<212>	nucleic acid
<213>	Zea mays

<400> 622

ggcgggtccgg ccgagatcat cgtgcacggc gtgtctggct accacatcga cccttaccag 240
 ggcgacaagg cgtcggccct gctcgtggac ttcttcgaca agtgccaggc ggagcggangc 300
 cactgg 306

<210> 623
 <211> 292
 <212> nucleic acid
 <213> Zea mays

<400> 623

actcggagag gctgatgacc ctcaccggcg tgtacggggt ctggaagtac gtgtccaacc 60
 tggagaggcg cgagaccggc cggtagcttg agatgctgta cgcgctcaag taccgcacca 120
 tggcgagcac cgtgccgctg gccgtggagg gagagccctc cagcaagtga tgcgcgacgg 180
 cggccacaga cctgatcgat cgatgagcga gagggagcac tcggagtgtc gtgtcttttc 240
 ccttgccatt tctttctttt tttcccttcc cggaggcgaa aaaaagagtc tg 292

<210> 624
 <211> 283
 <212> nucleic acid
 <213> Zea mays

<400> 624

caggccaatc ctgacctgat catcggaac tacagtgcgc gaaaccttgt tgcgtgtttg 60
 ctcgcccaca agatgggtgt tactcactgt accattgccc atgcgcttga gaaaactaag 120
 taccctaact ccgacctcta ctggaagaag tttgaggatc actaccactt ctcgtgccag 180
 ttcaccactg acttgattgc aatgaaccat gccgacttca tcatcaccag taccttccaa 240
 gagatcgccg gaaacaagga caccgtcggc cagtacgagt cac 283

<210> 625
 <211> 289
 <212> nucleic acid
 <213> Zea mays

<400> 625

ggcgaacctc gtgatcgctc ccggtgacca cggcaaggag tccaaggaca gggaggagca 60
 ggcggagtgc aagaagatgt acagcctcat cgacgagtac aagttgaagg gccatatccg 120

tgctgaagga caagaagaag cccatcatct tctcgatggc gcgtctcgac cgcgtgaaga 180
 acatgacagg cctggctcgag atgtacggca agaacgcgcg cctgagggag ctggcgaacc 240
 tcgtgatcgt tgccggtgac caccgcaagg agtccaagga cagggaggag caggcggag 299

<210> 629
 <211> 286
 <212> nucleic acid
 <213> Zea mays

<400> 629

cgcgatttga agtctggccg tacctggaga cttacactga tgacgtggcg catgagattg 60
 ctggagagct tcaggccaat cctgacctga tcatcggaat ctacagtgcg ggaaaccttg 120
 ttgcgtgttt gctcgccac aagatgggtg ttactcactg taccattgcc catgcgcttg 180
 agaaaactaa gtaccctaac tccgacctct actggaagaa gtttgaggat cactaccact 240
 tctcgtgcca gttcaccaca gacttgattg caatgaacca tgccga 286

<210> 630
 <211> 293
 <212> nucleic acid
 <213> Zea mays

<400> 630

caggaacttg gtctggagaa gggttgggtg gattgcgcta agcgtgcaca ggagactatc 60
 cacctcctct tggacctcct ggaggcccca gatccgtcca cctggagaa gttccttgga 120
 acgatcccca tgggtgtcaa tgctgttata ctctccctc atggttactt cgtcaagct 180
 aatgtcttgg gttacctga caccggaggc caggttgtct acatcttgga tcaagtgcgc 240
 gctatggaga acgaaatgct gctgaggatc aagcagtgtg gtcttgacat cac 293

<210> 631
 <211> 286
 <212> nucleic acid
 <213> Zea mays

<400> 631

gaacgaaatg ctgctgagga tcaagcagtg tggctcttgac atcacgccga agatccttat 60
 tgtcaccagg ttgctccctg atgcaactgg caccacctgt ggccagcgcc ttgagaaggt 120

<213> Zea mays

<400> 634

ggaggagcag gccgagttca agaagatggt tgacctcatc gagcagtaca acctgaacgg 60
gcacatccgc tggatctccg cccagatgaa ccgcgtccgc aacggcgagc tgtaccgcta 120
catctgcgac accaagggcg ccttcgtgca gcctgctttc tacgaggctt tcgggctgac 180
ggtggttgag gccatgacct gcggcctgcc cacgttcgcc accgcctacg ggggtccggc 240
cgagatcatc gtgcacggcg tgtcgggcta ccacatcgac ctttac 286

<210> 635

<211> 281

<212> nucleic acid

<213> Zea mays

<400> 635

ccgtcggcca gtacgagtca cacatggcgt tcacaatgcc tggcctgtac cgcgttgtcc 60
acggcattga tgtgttcgac cccaagttca acatcgtgtc tcctggcgcg gacctgtcca 120
tctacttccc gtacaccgag tcgcacaaga ggctgacctc ccttcacccg gagattgagg 180
agtccttgta cagccaaacc gagaacacgg agcacaagtt cgttctgaac gacaggaaca 240
agccaatcat cttctccatg gctcgtctcg accgtgtgaa g 281

<210> 636

<211> 282

<212> nucleic acid

<213> Zea mays

<400> 636

ggttacttcg ctcaagctaa tgtcttgggt taccctgaca ccggaggcca gggtgtctac 60
atcttggatc aagtgcgcgc tatggagaac gaaatgctgc tgaggatcaa gcagtgtggt 120
cttgacatca cgccgaagat ccttattgtc accaggttgc tccctgatgc aactggcacc 180
acctgtggcc agcgccttga gaaggtcctt ggcaccgagc actgccatat ccttcgcgtg 240
ccattcagaa cagaaaacgg aatcgttcgc aagtggatct cg 282

<210> 637

<211> 279

<212> nucleic acid

<213> Zea mays

<400> 637

catactctga atttcaccac aggttccagg aacttgggtct ggagaaggggt tgggggtgatt 60
 gcgctaagcg tgcacaggag actatccacc tcctcttggga cctcctggag gccccagatc 120
 cgtccaccct ggagaagttc cttggaacga tccccatggt gttcaatgtc gttatcctct 180
 cccctcatgg ttacttcgct caagctaattg tcttgggtta ccttgacacc ggaggccagg 240
 ttgtctacat cttggatcaa gtgcgcgcta tggagaacg 279

<210> 638

<211> 356

<212> nucleic acid

<213> Zea mays

<220>

<221> unsure

<222> (280)

<223>

<400> 638

cgcgcttggt ccggccgtac agctccacca gcccagtcaa gttcttcaca cggtcgagac 60
 gagccatgga gaagaccatt ggcttggtcc tgctggtcag aacgaacttg tgctccgtgt 120
 tctcggtttg gctgtacagg agctcctcaa tctccgggtg aagggagggtc agcctcttgt 180
 gcgactcggg gtacgggaag tagatggaca ggtccgcgcc aggagacacg atgttgaact 240
 tggggtcgaa cacatcaatg ccgtggacaa cgcggtacan gccaggcatt gtgaacgcca 300
 tgtgtgactc gtactggccg acggtgtcct tgtttccggc gatctctatg gaagta 356

<210> 639

<211> 288

<212> nucleic acid

<213> Zea mays

<400> 639

accacttctc gtgccagttc accactgact tgattgcaat gaaccatgcc gacttcatca 60
 tcaccagtac cttccaagag atcgccggaa acaaggacac cgtcggccag tacgagtcac 120
 acatggcggt cacaatgcct ggctgtacc gcgttggtcca cggcattgat gtgttcgacc 180
 ccaagttcaa catcgtgtct cctggcgcgg acctgtccat ctacttcccg tacaccgagt 240

cgcaacaagag gctgacctcc cttcacccgg agattgagga gtcctgt 288

<210> 640
<211> 294
<212> nucleic acid
<213> Zea mays

<400> 640

ggccgagatc atcgtgcacg gcgtgtctgg ctaccacatc gacccttacc agggcgacaa 60
ggcgtcggcc ctgctcgtgg acttcttcga caagtgccag gcggagcgag tccactggag 120
caagatctcc cagggcgggc tccagcgtat cgaggagaag tacacctgga agctgtactc 180
ggagaggctg atgacctca ccggcgtgta cgggttctgg aagtacgtgt ccaacctgga 240
gaggcgcgag acccggcggg acctggagat gctgtacgcg ctcaagtacc gcac 294

<210> 641
<211> 311
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (13), (37), (72), (263)
<223> unsure at all n locations

<400> 641

cggaacgttg gtntcgacaa gtgccaggcg gagcgangcc actggagcaa gatctcccag 60
ggcgggctcc angcgtatcg aggagaagta cacctggaag ctgtactcgg agaggctgat 120
gacctcacc ggcgtgtaag ggttctggaa gtacgtgtcc aacctggaga ggcgcgagac 180
ccggcgggtac ctggagatgc tgtacgcgct caagtaccgc accatggcga gcacctgcc 240
gctggccgtg gagggagagc ccnccagcaa gtgatgcgtg acggcggcca cagacctgat 300
cgatcgatga g 311

<210> 642
<211> 282
<212> nucleic acid
<213> Zea mays

<400> 642

cccttggAAC gatccccatg gtgttcaatg tCGttatcct ctcccccat ggttacttcg 60
 cacaagctaa tgtcttgggt taccctgaca cCGgaggcca ggttgtctac atcttggatc 120
 aagtgcgcgc tatggagaac gaaatgctgc tgaggatcaa gcagtgtggt cttgacatca 180
 cgccgaagat ccttattgtc accaggttgc tccctgatgc aactggcacc acctgtggcc 240
 agcgccttga gaaggctcctt ggcaccgagc actgccatat cc 282

<210> 646
 <211> 286
 <212> nucleic acid
 <213> Zea mays

<400> 646

gttgaggcca tgacctgcgg cctgcccacg tttgccacag cctacggcgg tccggccgag 60
 atcatcgtgc acggcgtgtc tggtaccac atcgaccctt accagggcga caaggcgtcg 120
 gccctgctcg tggacttctt cgacaagtgc caggcggacc cgagccactg gagcaagatc 180
 tcccagggcg ggctccagcg tatcgaggag aagtacacct ggaagctcta ctcgagagag 240
 ctgatgaccc tcaccggcgt gtacgggttc tggaagtacg tgtcca 286

<210> 647
 <211> 280
 <212> nucleic acid
 <213> Zea mays

<400> 647

gtaccctaac tccgacctct actggaagaa gtttgaggat cactaccact tctcgtgcc 60
 gttcaccact gacttgattg caatgaacca tgccgacttc atcatcacca gtaccttcca 120
 agagatcgcc ggaaacaagg acaccgtcgg ccagtacgag tcacacatgg cgttcacaat 180
 gcctggcctg taccgcgttg tccacggcat tgatgtgttc gaccccaagt tcaacatcgt 240
 gtctcctggc gcggaacctgt ccatctactt cccgtacacc 280

<210> 648
 <211> 286
 <212> nucleic acid
 <213> Zea mays

<400> 648

cgatcatcgt gcacggcgtg tctggctacc acatcgaccc ttaccagggc gacaaggcgt 60
 cggccctgct cgtggacttc ttcgacaagt gccaggcgga ccgagccact ggagcaagat 120
 ctcccagggc gggctccagc gtatcgagga gaagtacacc tggaaactgt actcggagag 180
 gctgatgacc ctcaccggcg tgtacgggtt ctggaagtac gtgtccaacc tggagaggcg 240
 cgagacccgg cggtagctgg agatgctgta cgcgctcaag taccgc 286

<210> 649
 <211> 331
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (282)
 <223>

<400> 649
 cacatcgacc cttaccaggg cgacaaggcg tcggccctgc tcgtggactt cttcgacaag 60
 tgccagcgta tcgaggagaa gtacacctgg aagctgtact cggagaggct gatgaccctc 120
 accggcgtgt acgggttctg gaagtacgtg tccaacctgg agaggcgga gacccggcgg 180
 tacctggaga tgctgtacgc gctcaagtac cgcaccatgg cgagcaccgt gccgctggcc 240
 gtggagggag agccctccag caagtgatgc gtgacggcgg cnacagacct gatcgatcga 300
 tgagcgagat ggagcactcg gagtgtcgtg t 331

<210> 650
 <211> 288
 <212> nucleic acid
 <213> Zea mays

<400> 650
 gtttgacctc atcgagcagt acaacctgaa cgggcacatc cgttgatct ccgccagat 60
 gaaccgcgtc cgcaacggcg agctgtaccg ctacatctgc gacaccaagg gcgccttcgt 120
 gcagcctgct ttctacgagg ctttcgggct gacgggtggtt gaggccatga cctgcggcct 180
 gccacgttc gccaccgct acggcgatcc ggccgagatc atcgtgcacg gcgtgtctgg 240
 ctaccacatc gacccttacc agggcgacaa ggcgtcggcc ctgctcgt 288

<210> 651
 <211> 304
 <212> nucleic acid
 <213> Zea mays

<400> 651

gggttctgga agtacgtgtc caacctggag aggcgcgaga cccggcggta cctggagatg 60
 ctgtacgcgc tcaagtaccg caccatggcg agcaccgtgc cgctggccgt ggagggagag 120
 ccctccagca agtgatgcgc gacggcggcc acagacctga tcgatcgatg agcgagaggg 180
 agcactcgga gtgtcgtgtc ttttcccttg ccatttcttt ctttttttcc cttcccggag 240
 gcgaaaaaaa gagtctgctt ttgctaggcg gcgggcgttc gttgctgctc attgcttcaa 300
 gagt 304

<210> 652
 <211> 285
 <212> nucleic acid
 <213> Zea mays

<400> 652

cggtctgagc tgagcacaca gacatcattc gcgttccctt cagaaatgag aatggcatcc 60
 tccgcaagtg gatctctcgt tttgatgtct ggccatacct ggagacatac actgaggatg 120
 tttccagtga aataatgaaa gaaatgcagg ccaagcctga ccttatcatt ggcaactaca 180
 gcgatggcaa cctagtcgcc actctgctcg cgcacaagtt gggagtcact cagtgtacca 240
 tcgctcatgc cttggagaaa accaaatacc ccaactcgga catat 285

<210> 653
 <211> 289
 <212> nucleic acid
 <213> Zea mays

<400> 653

gcacctgtcc accctacaag ctgatacccc atactctgaa tttcaccaca ggttccagga 60
 acttgggtctg gagaaggggtt ggggtgattg cgctaagcgt gcacaggaga ctatccacct 120
 cctcttggac ctcttgagg cccagatcc gtccacctg gagaagttcc ttggaacgat 180
 ccccatggtg ttcaatgtcg ttatcctctc cctcatggt tacttcgctc aagctaattgt 240
 cttgggttac cctgacaccg gaagccagggt tgtctacatc ttggatcaa 289

<210> 654
 <211> 275
 <212> nucleic acid
 <213> Zea mays

 <400> 654

 cccttccaag gacaaggagg agcaggccga gttcaagaag atgtttgacc tcatcgagca 60
 gtacaacctg aacgggcaca tccgctggat ctccgcccag atgaaccgcg tccgcaacgg 120
 cgagctgtac cgctacatct gcgacaccaa gggcgccctc gtgcagcctg ctttctacga 180
 ggctttcggg ctgacgggtg ttgaggccat gacctgcggc ctgcccacgt tcgccaccgc 240
 ctacggcggt ccggccgaga tcatcgtgca cggcg 275

<210> 655
 <211> 278
 <212> nucleic acid
 <213> Zea mays

 <400> 655

 gttccttga acgatcccca tgggtgtcaa tgtcgttatc ctctcccctc atggttactt 60
 cgctcaagct aatgtcttgg gttaccctga caccggaggc cagggttgtct acatcttga 120
 tcaagtgcgc gctatggaga acgaaatgct gctgaggatc aagcagtgtg gtcttgacat 180
 cacgccgaag atccttattg tcaccagggt gctccctgat gcaactggca ccacctgtgg 240
 ccagcgctt gagaagctcc ttggcaccga gcactgcc 278

<210> 656
 <211> 296
 <212> nucleic acid
 <213> Zea mays

 <400> 656

 gaaaactaag taccctaact ccgaccteta ctggaagaag tttgaggatc actaccactt 60
 ctcgtgccag ttcaccactg acttgattgc aatgaaccat gccgacttca tcatcaccag 120
 taccttccaa gagatcgccg gaaacaagga caccgtcggc cagtacgagt cacacatggc 180
 gttcacaatg cctggcctgt accgcgttgt ccacggcatt gatgtgttcg accccaagtt 240
 caacatcgtg tctcctggcg cggacctgtc catctacttc ccgtacaccg agtcgc 296

<210> 657
 <211> 278
 <212> nucleic acid
 <213> Zea mays

<400> 657

aagaggctga cctcccttca cccggagatt gaggagctcc tgtacagcca aaccgagaac 60
 acggagcaca agttcggttct gaacgacagg aacaagccaa tcatcttctc catggctcgt 120
 ctcgaccgtg tgaagaactt gactgggctg gtggagctgt acggccggaa caagcggctg 180
 caggagctgg tgaacctcgt ggctgtctgc ggcgaccatg gcaacccttc caaggacaag 240
 gaggagcagg ccgagttcaa gaagatgttt gacctcat 278

<210> 658
 <211> 306
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (246)
 <223>

<400> 658

ctggaggccc cagatccgtc caccctggag aagttccttg gaacgatccc catggtgtta 60
 caatgtcgtt atcctctccc ctcagtgtta ctctcgtcaa gctaagtctt tgggttaccc 120
 tgacaccgga ggccagggtt tctacatctt ggatcaagtg cgcgctatgg agaacgaaat 180
 gctgctgagg atcaagcagt gtggtcttga catcacgccg aagatcctta ttgtcaccag 240
 gttgcncctt gatgcaagtg gcaccacctg tggccagcgc tttagagagg tcttggcccc 300
 gaacat 306

<210> 659
 <211> 306
 <212> nucleic acid
 <213> Zea mays

<400> 659

ctcggagagg ctgatgaccc tcaccggcgt gtacgggttc tggaagtacg tgtccaacct 60

caagatctcc cagggcgggc tccagcgtat cgaggagaag tacacctgga agctctactc 120
 ggagaggctg atgacctca ccggcgtgta cgggttctgg aagtacgtgt ccaacctgga 180
 gaggcgcgag acccggcggg acctggagat gctgtacgcg ctcaagtacc gcaccatggc 240
 gagcaccgtg ccgctggccg tggagggaga gcctcc 276

<210> 663
 <211> 274
 <212> nucleic acid
 <213> Zea mays

<400> 663

gaatttcacc acaggttcca ggaacttggg ctggagaagg gttgggggtga ttgcgctaag 60
 cgtgcacagg agactatcca cctcctcttg gacctcctgg aggccccaga tccgtccacc 120
 ctggagaagt tccttgggaac gatcccatg gtgttcaatg tcgttatcct ctcccccat 180
 ggttacttcg ctcaagctaa tgtcttgggt taccctgaca ccggaggcca ggttgtctac 240
 atcttggatc aagtgcgcgc tatggagaac gaaa 274

<210> 664
 <211> 308
 <212> nucleic acid
 <213> Zea mays

<400> 664

gaccacgcgt cgacagcgtc cgggacctgg ggccggaaac aaggacaccg tcggccagta 60
 cgagtcacac atggcggttca caatgcctgg cctgtaccgc gttgtccacg gcattgatgt 120
 gttcgacccc aagttcaaca tcgtgtctcc tggcgcggac ctgtccatct acttcccgt 180
 caccgagtcg cacaagaggc tgacctcct tcacccggag attgaggagc tcctgtacag 240
 ccaaaccgag aacacggagc acaagttcgt tctgaacgac aggaacaagc caatcatctt 300
 ctccatgg 308

<210> 665
 <211> 279
 <212> nucleic acid
 <213> Zea mays

<400> 665

tgcccatg	cgttgcg	cttgagaaaa	ctaagtaccc	taactccgac	ctctactgga	agaagtttga	60
ggatcactac	cacttctcgt	gccagttcac	cacagacttg	attgcaatga	accatgccga		120
cttcatcatc	accagtacct	tccaagagat	cgccggaaaac	aaggacaccg	tcggccagta		180
cgagtcacac	atggcggttca	caatgcctgg	cctgtaccgc	gtcgtccacg	gcattgatgt		240
gttcgacccc	aagttcaaca	tcggtgtctcc	tggcgcgga				279

<210>	666
<211>	277
<212>	nucleic acid
<213>	Zea mays

<400>	666						
atccccatgg	tgttcaatgt	cgttatcctc	tcccctcatg	gttacttcgc	tcaagctaata		60
gtcttgggtt	accctgacac	cggaggccag	gttgtctaca	tcttggaatc	agtgcgcgct		120
atggagaacg	aaatgctgct	gaggatcaag	cagtgtgggtc	ttgacatcac	gccgaagatc		180
cttattgtca	ccaggttgct	ccctgatgca	actggcacca	cctgtggcca	gcgccttgag		240
aaggtccttg	gcaccgagca	ctgccatata	cttcgcg				277

<210>	667
<211>	284
<212>	nucleic acid
<213>	Zea mays

<400>	667					
cctggggtct	accgtgtcgt	ccatggcatc	gatgttttcg	atcccaagtt	caacattgtc	60
tcacctggag	cagacatgag	tgtttactac	ccgtatacgg	aaaccgacaa	gagactcact	120
gccttccatc	ctgaaatcga	ggagctcatc	tacagcgacg	tcgagaactc	cgagcacaag	180
ttcgtgctga	aggacaagaa	gaagccgac	atcttctcga	tggcgcgctc	cgaccgctg	240
aagaacatga	caggcctggt	cgagatgtac	ggcaagaacg	cgcg		284

<210>	668
<211>	286
<212>	nucleic acid
<213>	Zea mays

ctgaaatcga ggagctcatc tacagcgacg tcgagaactc cgagcacaag ttcgtgctga 60
 acgacaagaa gaagccgatc atcttctcga tggcgcgtct cgaccgcgtg aagaacatga 120
 caggcctggg cgagatgtac ggcaagaacg cgcgcctgac ggagctggcg aacctcgtga 180
 tcgttgccgg tgaccacggc aaggagtcca aggacaggga ggagcaggcg gagttcaaga 240
 agatgtacag cctcatcgac gagtacgagt tgaagggccca tatccg 286

<210> 669
 <211> 271
 <212> nucleic acid
 <213> Zea mays

<400> 669

tctacttccc gtacaccgag tcgcacaaga ggctgacctc ccttcacccg gagattgagg 60
 agctcctgta cagccaaacc gagaacacgg agcacaagtt cgttctgaac gacaggaaca 120
 agccaatcat cttctccatg gtcggtctcg accgtgtgaa gaacttgact gggctgggtgg 180
 agctgtacgg ccggaacaag cggctgcagg agctgggtgaa cctcgtgggc gtctgcggcg 240
 accatggcaa cccttccaag gacaaggagg a 271

<210> 670
 <211> 273
 <212> nucleic acid
 <213> Zea mays

<400> 670

cccgtacacc gagtcgcaca agaggctgac ctcccttcac ccggagattg aggagctcct 60
 gtacagccaa accgagaaca cggagcaca gttcgttctg aacgacagga acaagccaat 120
 catctttctcc atggctcgtc tcgaccgtgt gaagaacttg actgggctgg tggagctgta 180
 cggccggaac aagcggctgc aggagctggg gaacctcgtg gtcgtctgcg gcgaccatgg 240
 caacccttcc agggacaagg aggagcaggc cga 273

<210> 671
 <211> 270
 <212> nucleic acid
 <213> Zea mays

<400> 671

cctcccttca cccggagatt gaggagctcc tgtacagcca aaccgagaac acggagcaca 60
 agttcgttct gaacgacagg aacaagccaa tcatcttctc catggctcgt ctcgaccgtg 120
 tgaagaactt gactgggctg gtggagctgt acggccggaa caagcggctg caggagctgg 180
 tgaacctcgt ggtcgtctgc ggcgaccatg gcaacccttc caaggacaag gaggagcagg 240
 ccgagttcaa gaagatgttt gacctcatc 269

<210> 675
 <211> 273
 <212> nucleic acid
 <213> Zea mays

<400> 675
 ctgtggccag cgccttgaga aggtccttgg caccgagcac tgccatatcc ttcgcgtgcc 60
 attcagaaca gaaaacggaa tcgttcgcaa gtggatctcg cgatttgaag tctggccgta 120
 cctggagact tacactgatg acgtggcgca tgagattgct ggagagcttc aggccaatcc 180
 tgacctgatc atcggaact acagtgcgg aaaccttggt gcgtgtttgc tcgcccacaa 240
 gatgggtggt actcactgta ccattgccca tgc 273

<210> 676
 <211> 285
 <212> nucleic acid
 <213> Zea mays

<400> 676
 ccaagggcgc ctctgtgcag cctgctttct acgaggcttt cgggctgacg gtggttgacg 60
 ccatgacctg cggcctgccc acgttcgcca ccgcctacgg cggtcgggcc gagatcatcg 120
 tgcacggcgt gtctggctac cacatcgacc cttaccaggg cgacaaggcg tcggccctgc 180
 tcgtggactt cttcgacaag tgccaggcgg accgagccac tggagcaaga tctcccaggg 240
 cgggctccag cgtatcgagg agaagtacac ctggaagctg tactc 285

<210> 677
 <211> 281
 <212> nucleic acid
 <213> Zea mays

<400> 677

atcgagcagt acaacctgaa cgggcacatc cgctggatct ccgcccagat gaaccgcgtc 60
 cgcaacggcg agctgtaccg ctacatctgc gacaccaagg gcgccttcgt gcagcctgct 120
 ttctacgagg ctttcgggct gacggtggtt gaggccatga cctgcggcct gccacgttc 180
 gccaccgctt acggcggtcc ggccgagatc atcgtgcacg gcgtgtctgg ctaccacatc 240
 gacccttacc agggcgacaa ggcgtcggcc ctgctcgtgg a 281

<210> 678
 <211> 297
 <212> nucleic acid
 <213> Zea mays

<400> 678
 ctggagcaga catgagtgtt tactaccctg atacggaaac cgacaagaga ctactgcct 60
 tccatcctga aatcgaggag ctcatcaaca gcgacgtcga gaactccgag cacaagttcg 120
 tgctgaagga caagaagaag ccgatcatct tctcgatggc gcgtctcgac cgcgtgaaga 180
 acatgacagg cctggtggag atgtacggca agaacgcgcg cctgagggag ctggcgaacc 240
 tcgtgatcgt cgccggtgac cacggcaaga gtccaaggac agggaggagc aggcgga 297

<210> 679
 <211> 273
 <212> nucleic acid
 <213> Zea mays

<400> 679
 cgtgcacggc gtgtctggct accacatcga cccttaccag ggcgacaagg cgtcggccct 60
 gctcgtggac ttcttcgaca agtgccaggc ggacccgagc cactggagca agatctccca 120
 gggcggggctc cagcgtatcg aggagaagta cacctggaag ctctactcgg agaggctgat 180
 gaccctcacc ggcgtgtacg ggttctggaa gtacgtgtcc aacctggaga ggcgcgagac 240
 ccggcggtac ctggagatgc tgtacgcgtc caa 273

<210> 680
 <211> 279
 <212> nucleic acid
 <213> Zea mays

<400> 680

<400> 683
 agaagatggt tgacctcatc gagcagtaca acctgaacgg gcacatccgc tggatctccg 60
 cccagatgaa ccgcgtccgc aacggcgagc tgtaccgcta catctgcgac accaagggcg 120
 ccttcgtgca gcctgctttc tacgaggctt tcgggctgac ggtggttgag gccatgacct 180
 gcggcctgcc cacgttcgcc accgcctacg gcgggtccggc cgagatcatc gtgcacggcg 240
 tgtctggcct acacatcgga ccttaccag gcgacaaagc gtcggcactg ctggtggact 300

<210> 684
 <211> 264
 <212> nucleic acid
 <213> Zea mays

<400> 684
 ggccgagttc aagaagatgt ttgacctcat cgagcagtac aacctgaacg ggcacatccg 60
 ctggatctcc gccagatga accgcgtccg caacggcgag ctgtaccgct acatctgcga 120
 caccaagggc gccttcgtgc agcctgcttt ctacgaggct ttcgggctga cgggtggtga 180
 ggccatgacc tgcggcctgc ccacgtttgc cacagcctac ggcggtccgg ccgagatcat 240
 cgtgcacggc gtgtctggct acca 264

<210> 685
 <211> 325
 <212> nucleic acid
 <213> Zea mays

<400> 685
 gtcggaacaa gcggctgcag gagctggtga cctcgtggtc gtctgcggcg accatggcaa 60
 cccttccaag gacaaggatg atcaggccga gttcaagaag atgtttgacc tcatcgagca 120
 gtacaacctg aacgggtaca tccgtggat ctccgccag atgaaccgcg tccgcaacgg 180
 cgagctgtac cgctacatct gcgacacat aggcgccttc gtgcagcctg ctttctacga 240
 ggctttcggg ctgacggtgg ttgaagctat gacctgcggc ctgcccagat tcgccaccgc 300
 ctagagggtc cggccagatc atcgt 325

<210> 686
 <211> 291

<212> nucleic acid
<213> Zea mays

<400> 686

ggacctggga agtacacctg gaagctgtac tcggagagggc tgatgaccct caccggcgtg 60
tacgggttct ggaagtacgt gtccaacctg gagaggcgcg agaccggcg gtacctggag 120
atgctgtacg cgctcaagta ccgcaccatg gcgagcaccg tgccgctggc cgtggaggga 180
gagccctcca gcaagtgatg cgtgacggcg gccacagacc tgatcgatcg atgagcgaga 240
gggagcactc ggagtgtcgt gtcttttccc ttgccatttc tttctttctt c 291

<210> 687
<211> 279
<212> nucleic acid
<213> Zea mays

<400> 687

gcgttgtcca cggcattgat gtgttcgacc ccaagttcaa catcgtgtct cctggcgcg 60
acctgtccat ctacttcccg tacaccgagt cgcacaagag gctgacctcc cttcaccgg 120
agattgagga gctcctgtac agccaaaccg agaacacgga gcacaagttc gttctgaacg 180
acaggaacaa gccaatcatc ttctccatgg ctggtctcga ccgtgtgaag aacttgactg 240
ggctggtgga gctgtacggc cggaacaagc ggctgcagg 279

<210> 688
<211> 270
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (256)
<223>

<400> 688

gccctgctcg tggacttctt cgacaagtgc caggcggagc gagccactgg agcaagatct 60
cccagggcg gctccagcgt atcgaggaga agtacacctg gaagctgtac tcggagagggc 120
tgatgaccct caccggcgtg tacgggttct ggaagtacgt gtccaacctg gagaggcgcg 180
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270

<210> 689
<211> 274
<212> nucleic acid
<213> Zea mays

<400> 689

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acaaggcggt gccctgctc gtggacttct tcgacaagtg ccaggcggac ccgagccact 180

ggagcaagat ctcccagggc gggctccagc gtatcgagga gaagtacacc tggaagctct 240

actcggagag gctgatgacc ctcaccggcg tgta 274

<210> 690
<211> 267
<212> nucleic acid
<213> Zea mays

<400> 690

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tcgaccgtgt gaagaacttg actgggctgg tggagctgta cggccggaac aagcggctgc 120

aggagctggg gaacctcgtg gtcgtctgcg gcgaccatgg caacccttcc aaggacaagg 180

aggagcaggc cgagttcaag aagatgtttg acctcatcga gcagtacaac ctgaacgggc 240

acatccgctg gatctccgcc cagatga 267

<210> 691
<211> 268
<212> nucleic acid
<213> Zea mays

<400> 691

gccaaccga gaacacggag cacaagttcg ttctgaacga caggaacaag ccaatcatct 60

tctccatggc tcgtctcgac cgtgtgaaga acttgactgg gctggtggag ctgtacggcc 120

ggaacaagcg gctgcaggag ctggtgaacc tcgtggtcgt ctgcggcgac catggcaacc 180

cttccaagga caaggaggag caggccgagt tcaagaagat gtttgacctc atcgagcagt 240

268

<400> 692

<400> 693

<400> 694

249

cgggctgacg gtggttgagg ccatgacctg cggcctgccc

280

<210> 695
<211> 270
<212> nucleic acid
<213> Zea mays

<400> 695

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gacggtgggtt gaggccatga cctgcggcct gccacggtt gccacagcct acggcggtcc 180
ggccgagatc atcgtgcacg gcgtgtctgg ctaccacatc gacccttacc agggcgacaa 240
ggcgtcggcc ctgctcgtgg acttcttcga 270

<210> 696
<211> 282
<212> nucleic acid
<213> Zea mays

<400> 696

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actgacttga ttgcaatgaa ccatgccgac ttcacatca ccagtacctt ccaagagatc 120
gccggaaaca aggacaccgt cggccagtag gagtcacaca tggcgttcac aatgcctggc 180
ctgtaccgcy ttgtccacgy cattgatgtg ttcgaccca agttcaacat cgtgtctcct 240
ggcgcggaacc tgtccatcta cttcccgtag accgagtcgc ac 282

<210> 697
<211> 285
<212> nucleic acid
<213> Zea mays

<400> 697

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acctgtcatc aaagctcttc catgacaagg agagcatgta ccccttgctc aacttccttc 120
gcgcccacaa ctacaagggg atgaccatga tgttgaacga cagaatccgc agtctcagtg 180
ctctgcaagg tgcgctgagg aaggctgagg agcacctgtc caccctacaa gctgataccc 240

catactctga atttcaccac aggttccagg aacttgggtct ggaga

285

<210> 698
<211> 264
<212> nucleic acid
<213> Zea mays

<400> 698

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agtgcaggaa accttgttgc gtgtttgctc gccacaaga tgggtgttac tcaactgtacc 180
attgccccatg cgcttgagaa aactaagtac cctaactcgg acctctactg gaagaagttt 240
gaggatcact accacttctc gtgc 264

<210> 699
<211> 264
<212> nucleic acid
<213> Zea mays

<400> 699

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ttctcgtgcc agttcaccac tgacttgatt gcaatgaacc atgccgactt catcatcacc 120
agtaccttcc aagagatcgc cggaaacaag gacaccgtcg gccagtacga gtcacacatg 180
gcgttcacaa tgccctggcct gtaccgcgtt gtccacggca ttgatgtgtt cgaccccaag 240
ttcaacatcg tgtctcctgg cgcg 264

<210> 700
<211> 264
<212> nucleic acid
<213> Zea mays

<400> 700

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tggcgtgcag ttccctcaaca ggcacctgtc atcaaagctc ttccatgaca aggagagcat 120
gtaccccttg ctcaacttcc ttgcgcgcca caactacaag gggatgacca tgatgttgaa 180
cgacagaatc cgcagtctca gtgctctgca aggtgcgctg aggaaggctg aggagcacct 240

gtccacccta caagctgata cccc

264

<210> 701
<211> 288
<212> nucleic acid
<213> Zea mays

<400> 701

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acttcgctca agctaagtgc ttgggttacc ctgacaccgg atgccagggt gtatacatct 120
tggatcaagt gcgcgctatg gagaacgaaa tgctgctgag gatcaagcag tgtgggtcttg 180
acatcacgcc gaagatcctt attgtcacca ggttgcctcc tgatgcaact ggcaccacct 240
gtggccagcg ccttgagaag gtccttggca ccgagcactg ccatatcc 288

<210> 702
<211> 268
<212> nucleic acid
<213> Zea mays

<400> 702

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gcgtgtacgg gttctggaag tacgtgtcca acctggagag gcgcgagacc cggcgggtacc 120
tgagatgct gtacgcgtc aagtaccgca ccatggcgag caccgtgccg ctggccgtgg 180
agggagagcc ctccagcaag tgatgcgcga cggcggccac agacctgatc gatcgatgag 240
cgagagggag cactcggagt gtcgtgtc 268

<210> 703
<211> 265
<212> nucleic acid
<213> Zea mays

<400> 703

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ttctcgtgcc agttcaccac tgacttgatt gcaatgaacc atgccgactt catcatcacc 120
agtaccttcc aagagatcgc cggaaacaag gacaccgtcg gccagtacga gtcacacatg 180
gcgttcacaa tgcttggcct gtaccgcgtt gtccacggca ttgatgtgtt cgacccaag 240

ttcaacatcg tgtctcctgg cgcgg

265

<210> 704
<211> 228
<212> nucleic acid
<213> Zea mays

<400> 704

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caagaggctg acctcccttc acccggagat tgaggagctc ctgtacagcc aaaccgagaa 120
cacggagcac aagttcgttc tgaacgacag gaacaagcca atcatcttct ccatggctcg 180
tctcgaccgt gtgaagaact tgactgggct ggtggagttg tacggccg 228

<210> 705
<211> 297
<212> nucleic acid
<213> Zea mays

<400> 705

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gctcctgtac agccaaaccg agaacacgga gcacaagttc gatctgaacg acagcgaaca 120
agccaatcat cttctccatg gtcgtctcg accgtgtgaa gaacttgact gggctgggtg 180
agctgtacgg ccggaacaag cggctgcagg agctgggtgaa cctcgtggtc gtctgcggcg 240
accatggcaa cccttccaag gacaaggagg agcaggccga gttcaagaag atgtttg 297

<210> 706
<211> 286
<212> nucleic acid
<213> Zea mays

<400> 706

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aaggcagatc cgagctactg ggacaagatc tcacagggcg gcctgcagag aatctatgag 120
aagtacacct ggaagctcta ctccgagagg ctgatgaccc tgaccggcgt gtacgggttc 180
tggaagtacg tgagcaacct ggagaggcgc gagaccgccc gctacatcga gatgttctac 240
gccctgaagt accgtagcct ggcaagccag ggtccgctgt ccttcg 286

<210> 707
 <211> 272
 <212> nucleic acid
 <213> Zea mays

<400> 707

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 ctcttgaggg cccagatcc gtccaccctg gagaagttcc ttgtacgac cccatggtgt 120
 tcaatgtcgt tctctctcc cctcatggtt acttcgctca agctaattgc ttgggttacc 180
 ctgacaccgg aggcagggtt gtctacatct tggatcaagt gcgtgctatg gagaacgaaa 240
 tgctgctgag gatcaagcag tgtggtcttg ac 272

<210> 708
 <211> 299
 <212> nucleic acid
 <213> Zea mays

<400> 708

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 tctctttct cctcatggtt acttcgctca gtccaatgtg cttggatacc ctgacactgg 120
 cggtcagggtt gtgtacattc tggatcaagt ccgtgctttg gagaatgaga tgcttctgag 180
 gattaagcag caaggccttg atatcactcc gaagatcctc attgttacca ggctgttgcc 240
 tgatgctgct gggactacgt gcggtcatcg gctggagaag gtcattggta ctgagcaca 299

<210> 709
 <211> 329
 <212> nucleic acid
 <213> Zea mays

<400> 709

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 gcgccttcgt gcagcctgct ttctacgagg ctttcgggct gacggtggtt gacgccatga 180
 cctgcggcct gccacggtt gccacagcct acggcgggtc ggccgagatc atcgtgcacg 240
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329

<400> 710

<400> 711

<400>	712
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255

gggtctggaga aggggttgggg tgattgcgct aagcgtgcac aggagactat 290

<210> 713
<211> 274
<212> nucleic acid
<213> Zea mays

<400> 713

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cttccatgac aaggagagca tgtaccctt gctcaacttc cttcgcgccc acaactacaa 180
ggggatgacc atgatgttga acgacagaat ccgcagtctc agtgctctgc aagggtgcgct 240
gaggaaggct gaagagcacc tgtccaccct acaa 274

<210> 714
<211> 270
<212> nucleic acid
<213> Zea mays

<400> 714

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agtaacgagtc ccacatcgcg ttcactcttc ctgggctcta ccgtgtcgtc catggcatcg 120
atgttttctga tcccaagttc aacattgtct cccctggagc agacatgagt gtttactacc 180
cgtatacggga aaccgacaag agactcactg ccttccatcc tgaaatcgag gagctcatca 240
acagcgacgt cgagaactcc gagcacaagt 270

<210> 715
<211> 267
<212> nucleic acid
<213> Zea mays

<400> 715

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gctcaacttc cttcgcgccc acaactacaa ggggatgacc atgatgttga acgacagaat 120
ccgcagtctc agtgctctgc aagggtgcgct gaggaaggct gaggagcacc tgtccaccct 180
acaagctgat accccatact ctgaatttca ccacagggtc caggaaacttg gtctggagaa 240

gggttggggt gattgcgcta agcgtgc

267

<210> 716
<211> 262
<212> nucleic acid
<213> Zea mays

<400> 716

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accactgact tgattgcaat gaaccatgcc gacttcatca tcaccagtac cttccaagag 120
atcgccggaa acaaggacac cgtcggccag tacgagtcac acatggcggt cacaatgcct 180
ggcctgtacc gcgttgcca cggcattgat gtgttcgacc ccaagttcaa catcgtgtct 240
cctggcgcggt acctgtccat ct 262

<210> 717
<211> 278
<212> nucleic acid
<213> Zea mays

<400> 717

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gacttcatca tcaccagtac cttccaagag atcgccggat acaaggacac cgtcggccag 120
tacgagtcac acatggcggt cacaatgcct ggtctgtacc gcgttgcca cggcattgat 180
gtgttcgacc ccaagttcaa catcgtgtct cctggcgcggt acctgtccat ctacttcccg 240
tacaccgagt cgcacaagat gctgacctcc cttcaccc 278

<210> 718
<211> 263
<212> nucleic acid
<213> Zea mays

<400> 718

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ccagatccgt ccacctgga gaagttcctt ggaacgatcc ccatggtgtt caatgtcggt 120
atcctctccc ctcatgggta cttcgctcaa gctaattgtct tgggttaccc tgacaccgga 180
ggccaggttg tctacatctt ggatcaagtgc gcgctatgg agaacgaaat gctgctgagg 240

263

<400> 719

<400> 720

<400>	721
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258

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tctttctt 308

<210> 722
<211> 264
<212> nucleic acid
<213> Zea mays

<400> 722

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cgtgccattc agaacagaaa acggaatcgt tcgcaagtgg atctcgcgat ttgaagtctg 180
gccgtacctg gagacttaca ctgatgacgt ggcgcgatgag attgctggag agcttcaggc 240
caatcctgac ctgatcatcg gaaa 264

<210> 723
<211> 259
<212> nucleic acid
<213> Zea mays

<400> 723

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gtacttgga ttcaaggaac agctggtgga tggacaatcc aacagcaact ttgtgcttga 120
gcttgatttt gageccttca atgctcctt tcctcgctct tccatgtcga agtcaatcgg 180
aaatggagtg caattcctta accgacacct gtcgtccaag ttgttccggg acaaggagag 240
tttgtacccc ttgctgaat 259

<210> 724
<211> 272
<212> nucleic acid
<213> Zea mays

<400> 724

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ccagatgaac cgcgtccgca acggcgagct gtaccgctac atctgcgaca ccaagggcgc 120
cttcgtgcag cctgctttct acgaggcttt cgggctgacg gtggttgagg ccatgacctg 180

cggcctgccc acgtttgcca cagcctacgg cgggccggcc gagatcatcg tgcacggcgt 240
gtctggctac cacatcgacc cttaccaggg cg 272

<210> 725
<211> 264
<212> nucleic acid
<213> Zea mays

<400> 725

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cctcgtgatc gttgccgggtg accacggcaa ggagtccaag gacagggagg agcagggcgga 120
gttcaagaag atgtacagcc tcatcgacga gtacaagttg aagggccata tccggtggat 180
ctcggcgcag atgaaccgcg tccgcaacgg ggagctgtac cgctacattt gcgatacgaa 240
gggcgcattc gtgcagcctg cgtg 264

<210> 726
<211> 265
<212> nucleic acid
<213> Zea mays

<400> 726

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atacactgag gatgtttcca gtgaaataat gaaagaaatg caggccaagc ctgaccttat 120
cattggcaac tacagcgatg gcaacctagt cgccactctg ctcgcacaca agttgggagt 180
cactcagtgt accatcgctc atgccttgga gaaaaccaa taccccaact cggacatcta 240
cttggacaag ttcgacagcc agtac 265

<210> 727
<211> 303
<212> nucleic acid
<213> Zea mays

<400> 727

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tgttcgaccc caagttcaac atcgtgtctc ctggcgcgga cctgtccatc tacttcccgt 120
acaccgagtc gcacaagagg ctgacctccc ttaccccgga gattgaggag ctctgtaca 180

acaaatgcaa ggcagatccg agctactggg acaagatctc acagggcggc ctgcagagaa 180
 tttatgagaa gtacacctgg aagctctact ccgagaggct gatgaccctg accggcgtgt 240
 acgggttctg gaagtacgtg agcaac 266

<210> 731
 <211> 293
 <212> nucleic acid
 <213> Zea mays

<400> 731

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 cagatgaacc gcgtccgcaa cggcgagctg taccgctaca tctgcgacac caagggcgcc 180
 ttcgtgcagc ctgctttcta cgaggctttc gggctgacgg tggttgaggc catgacctgc 240
 ggctgcccc a cgtttgccac agcctacggc ggtcggggccg agatcatcgt gca 293

<210> 732
 <211> 265
 <212> nucleic acid
 <213> Zea mays

<400> 732

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 ttgaagggcc atatccggtg gatctcggcg cagatgaacc gcgtccgcaa cggggagctg 180
 taccgctaca tttgcgatac caagggcgca ttcgtgcagc ctgcgttcta cgaagcgttc 240
 ggctgactg tgatcgagtc catga 265

<210> 733
 <211> 261
 <212> nucleic acid
 <213> Zea mays

<400> 733

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 aactttgttc ttgagctgga ctttgagcca ttcaatgcct ccttcccccg tccttctctg 120

tcaaagtcca ttggcaatgg cgtgcagttc ctcaacaggc acctgtcatc aaagctcttc 180
catgacaagg agagcatgta ccccttgctc aacttccttc gcgcccacaa ctacaagggg 240
atgaccatga tgttgaacga c 261

<210> 734
<211> 272
<212> nucleic acid
<213> Zea mays

<400> 734

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tcgtccatgg catcgatggt ttcatccca agttcaacat tgtctccctt ggagcagaca 120
tgagtgttta ctaccggtat acggaaacga caagagactc actgccttcc atcctgaaat 180
cgaggagctc atctacagcg acgtcgagaa ctccgagcac aagttcgtgc tgaaggacaa 240
gaagaagccg atcatcttct cgatggcgcg tc 272

<210> 735
<211> 270
<212> nucleic acid
<213> Zea mays

<400> 735

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cagggcgggc tccagcgtat cgaggagaag tacacctgga agctgtattc ggagaggctg 180
atgaccctca ccggcgtgta cgggttctg aagtacgtgt ccaacctgga gaggcgcgag 240
accggcggtt acctggagat gctgtacgag 270

<210> 736
<211> 270
<212> nucleic acid
<213> Zea mays

<400> 736

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aaatgctgct gaggatcaag cagtgtggtc ttgacatcac gccgaagatc cttattgtca 120

ccaggttgct ccctgatgca actggcacca cctgtggcca gcgccttgag aaggtccttg 180
gcaccggcac tgccatatcc ttcgcgtgcc attcagaaca gaaaacggaa tcgttcgcaa 240
gtggatctcg cgatttgaag tctggccgta 270

<210> 737
<211> 262
<212> nucleic acid
<213> Zea mays

<400> 737

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agccgatcat cttctcgatg gcgcgtctcg accgcgtgaa gaacatgaca ggccctggtgg 120
agatgtacgg caagaacgcg cgccctgaggg agctggcgaa cctcgtgatc gtcgccggtg 180
accacggcaa ggagtccaag gacagggagg agcaggcgga gttcaagaag atgtacagcc 240
tcatcgacga gtacaagttg aa 262

<210> 738
<211> 262
<212> nucleic acid
<213> Zea mays

<400> 738

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gagtacaagt tgaagggcca tatccggtgg atctcggcgc agatgaaccg cgtccgcaac 120
ggggagctgt accgtacat ttgcgatacg aaggcgcat tcgtgcagcc tgcgttctac 180
gaagcgcttcg gctgactgt gatcgagtcc atgacgtgcg gtctgccaac gatcgcgacc 240
tgccatggtg gccctgctga ga 262

<210> 739
<211> 262
<212> nucleic acid
<213> Zea mays

<400> 739

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atgatgttta acgttggtat cctgtctcct catggctact tcgcccagtc caatgtgctt 120

ggataccctg acactggcgg tcaggttggtg tacattctgg atcaggtccg tgctttggag 180
aatgagatgc ttctgaggat taagcagcaa ggccttgata tcaactccgaa gatcctcatt 240
gttaccaggc tgttgccctga tg 262

<210> 740
<211> 264
<212> nucleic acid
<213> Zea mays

<400> 740

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ctcttgccag ttcacagctg accttattgc catgaaccac actgatttca tcatcaccag 120
cacattccaa gaaatcgcgg gaagcaagga caccgtgggg cagtacgagt cccacatcgc 180
gttcactctt cctgggctct accgtgtcgt ccatggcatc gatgttttcg atcccaagtt 240
caacattgtc tcccctggag caga 264

<210> 741
<211> 300
<212> nucleic acid
<213> Zea mays

<400> 741

cccacgcgtc cgcccacgcg tccgcccacg cgtccgatct tctcgatggc gcgtctcgac 60
cgcgtaaga acatgacagg cctgggtggag atgtacggca agaacgcgcg cctgaaggag 120
ctggcgaacc tcgtgatcgt cgccggtgac cacggcaagg agtccaagga cagggaggag 180
caggcggagt tcaagaagat gtacagcctc atcgacgagt acaagttgaa gggccatatc 240
cggtggatct cggcgcagat gaaccgcgtc cgcaacgggg agctgtaccg ctacatttgc 300

<210> 742
<211> 278
<212> nucleic acid
<213> Zea mays

<400> 742

tgcaattcct taaccgacac ctgtcgtcca agttgttcca ggacaaggag agtttgtacc 60
ccttgcgtgaa cttcctcaag gtcataact acaagggcac gacgatgatg ttgaatgaca 120

gaatccaaag ccttcgtggt ctccaatcat ccctgagaaa ggcagaggag tatctactga 180
 gtgttcctca agacactccc tactcggagt tcaaccatag gttccaagag cttggcttgg 240
 agaagggttg gggtgacact gcgaacgtgt actcgaca 278

<210> 743
 <211> 315
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (286)
 <223>

<400> 743

acctggagag gcgcgagacc cggcggtacc tggagatgct gtacgcgctc aagtaccgca 60
 ccatggcgag acaccgtgcc gctggccgtg gacggagagc cctccagcaa gtgatgcgcg 120
 acggcggcca cagacctgat cgatcgatga gcgagaggga gcactcggag tgcgtgtct 180
 tttcccttgc catttctttc tttttttccc ttcccggagg cgaaaaaaag agtctgcttt 240
 tgctaggcgg cgggcgttcg ttgctgctct ttgcttcaag agttanattt acctaccttg 300
 tcaaggcttt gttcc 315

<210> 744
 <211> 275
 <212> nucleic acid
 <213> Zea mays

<400> 744

atttcaccac aggttccagg aacttggctt ggagaagggt tggggtgatt gcgctaagcg 60
 tgcacaggag actatccacc tcctcttggc cctcctggag gccccagatc cgtccaccct 120
 ggagaagttc cttggaacga ttcccatggt tttcaatgtc gttatccgct cccctcatgg 180
 ttacgtcgct caagctaata tcttgggtta ccctggcacc ggaggccagg ttgtctacat 240
 cttggatcaa gtggcgcgct atggagaacg aaatg 275

<210> 745
 <211> 271
 <212> nucleic acid
 <213> Zea mays

<400> 745

gaggagctga gtgtttctga gtacttggca ttcaaggaac agctggtgga tggacaatcc 60

aacagcaact ttgtgcttga gcttgatfff gagcccttca atgcctcctt tcctcgtcct 120

tccatgtcga agtccatcgg aaatggagtg caattcctta accgacacct gtcgtccaag 180

ttgttccagg acaaggagag tttgtacccc ttgctgaact tcctcaaggc tcataactac 240

aagggcacga cgatgatgtt gaatgacaga a 271

<210> 746

<211> 258

<212> nucleic acid

<213> Zea mays

<400> 746

cggaatcgtt cgcaagtgga tctcgcgatt tgacgtctgg ccgtacctgg agacttacac 60

tgatgacgtg gcgcattgaga ttgctggaga gcttcaggcc aatcctgacc tgatcatcgg 120

aaactacagt gacggaaacc ttgttgctg tttgctcgcc cacaagatgg gtgttactca 180

ctgtaccatt gcccatgcgc ttgagaaaac taagtaccct aactccgacc tctactggaa 240

gaagtttgag gatcacta 258

<210> 747

<211> 265

<212> nucleic acid

<213> Zea mays

<400> 747

cgccgaagat ccttattgtc accaggttgc tccctgatgc aactggcacc acctgtggcc 60

agcgccttga gaaggctcctt ggcaccgagc actgccatat ccttcgcgtg ccattcagaa 120

cagaaaacgg aatcgttcgc aagtggatct cgcgatttga agtctggccg tacctggaga 180

cttacactga tgacgtggcg catgagattg ctggagagct tcaggccaat cctgacctga 240

tcacgcgaaa ctacagtgc ggaaa 265

<210> 748

<211> 263

<212> nucleic acid

<213> Zea mays

<400> 751
 ccggtgacca cggcaaggag tccaaggaca gggaggagca ggcggagttc aagaagatgt 60
 acagcctcat cgacgagtac aagttgaagg gccatatccg gtggatctcg gcgcagatga 120
 accgcgtccg caacggggag ctgtaccgct acatttacga taccaagggc gcattcgtgc 180
 agcctgcgtt ctacgaagcg ttcggcctga ctgtgatcga gtccatgacg tgcgggtctgc 240
 caacgatcgc gacctg 256

<210> 752
 <211> 274
 <212> nucleic acid
 <213> Zea mays

<400> 752
 gaacgaaatg ctgctgagga tcaagcagtg tggctcttgac atcacgccga agatccttat 60
 tgtcaccagg ttgctccctg atgcaactgg caccacctgt ggccagcgcc ttgagaaggt 120
 ccttggcacc gagcactgcc atatccttcg cgtgccattc agaacagaaa acggaatcgt 180
 tcgcaagtgg atctcgcgat ttgaagtctg gccgtacctg gagacttaca ctgatgacgt 240
 ggcgcgatgag attgctggag agcttcaggc caat 274

<210> 753
 <211> 274
 <212> nucleic acid
 <213> Zea mays

<400> 753
 cggacggtgg gtcacgcgaa actacagtga cggaaacctt gttgcgtggt tgcctgcccc 60
 caagatgggt gttactcact gtaccattgc ccatgcgctt gagaacacta agtaccctaa 120
 ctccgacctc tactggaaga agtttgagga tcaactaccac ttctcgtgcc agttcaccac 180
 tgacttgatt gcaatgaacc atgccgactt catcatcacc agtaccttcc aagagatcgc 240
 cggaaacaag gacaccgtcg gccagtacga gtca 274

<210> 754
 <211> 263
 <212> nucleic acid
 <213> Zea mays

<400> 754
 ctggagacat acactgagga tgtttccagt gaaataatga aagaaatgca ggccaagcct 60
 gaccttatca ttggcaacta cagcgatggc aagctagtcg ccactctgct cgcacacaag 120
 ttgggagtc a ctcagtgtac catcgctcat gccttggaga aaaccaata ccccaactcg 180
 gacatctact tggacaagtt cgacagccag taccacttct cttgccagtt cacagctgac 240
 cttattgcca tgaaccacac tga 263

<210> 755
 <211> 274
 <212> nucleic acid
 <213> Zea mays

<400> 755
 gctcctgtac agccaaaccg agaacacgga gcacaagttc gatctgaacg acaggagcaa 60
 gccaatcatc ttctccatgg ctctgtctga ccgtgtgaag aacttgactg ggctgggtgga 120
 gctgtacggc cggaacaagc ggctgcagga gctgggtgtac ctctgtggtcg tctgcggcga 180
 ccatggcaac ccttccgagg acaaggatga tcaggccgag ttcatgaaga tgtttgacct 240
 cgctgagcag tacaacctga acgggcacat ccgc 274

<210> 756
 <211> 256
 <212> nucleic acid
 <213> Zea mays

<400> 756
 tcgagatgta cggcaagaac gcgcgcctga gggagctggc gaacctcgtg atcgttgccg 60
 gtgaccacgg caaggagtcc aaggacaggg aggagcaggc ggagttcaag aagatgtaca 120
 gcctcatcga cgagtacaag ttgaagggcc atatccggtg gatctcggcg cagatgaacc 180
 gcgtccgcaa cggggagctg taccgctaca ttgcgatac gaagggcgca ttcgtgcagc 240
 ctgcgtttcta cgaagc 256

<210> 757
 <211> 261
 <212> nucleic acid
 <213> Zea mays

<400> 757
catctacagc gacgtcgaga actccgagca caagtctgtg ctgaaggaca agaagaagcc 60
gatcatcttc tcgatggcgc gtctcgaccg cgtgaagaac atgacaggcc tggtcgagat 120
gtacggcaag aacgcgcgcc tgagggagct ggcgaaacctc gtgatcgttg ccggtgacca 180
cggcaaggag tccaaggaca gggaggagca ggcggagttc aagaagatgt acagcctcat 240
cgacgagtac aagttgaagg g 261

<210> 758
<211> 252
<212> nucleic acid
<213> Zea mays

<400> 758
cttccttcgc gccacaaact acaaggggat gaccatgatg ttgaacgaca gaatccgcag 60
tctcagtgtc ctgcaagggtg cgctgaggaa ggctgaggag cacctgtcca ccctacaagc 120
tgatacccca tactctgaat ttcaccacag gttccaggaa cttggtctgg agaagggttg 180
gggtgattgc gctaagcgtg cacaggagac tatccacctc ctcttggaacc tcctggaggc 240
cccagatccg tc 252

<210> 759
<211> 279
<212> nucleic acid
<213> Zea mays

<400> 759
cccacgcgtc cgcccacgcg tccgccctgc tcgtggactt ctctgacaag tgccaggcgg 60
agcgagccac tggagcaaga tctcccaggg cgggctccag cgtatcgagg agaagtacac 120
ctggaagctg tactcggaga ggctgatgac cctcaccggc gtgtacgggt tctggaagta 180
cgtgtccaac ctggagaggc gcgagaccgc gcggtacctg gagatgctgt acgcgctcaa 240
gtaccgcacc atggcgagca ccgtgccgct ggccgtgga 279

<210> 760
<211> 254
<212> nucleic acid
<213> Zea mays

<400> 760
 ggtggagctg tacggccgga acaagcggct gcaggagctg gtgaacctcg tggtcgtctg 60
 cggcgaccat ggcaaccctt ccaaggacaa ggaggagcag gccgagttca agaagatggt 120
 tgacctcatc gagcagtaca acctgaacgg gcacatccgc tggatctccg cccagatgaa 180
 ccgcgtccgc aacggcgagc tgtaccgcta catctgcgac accaagggcg ctttcgtgca 240
 gcctgctttc tacg 254

<210> 761
 <211> 272
 <212> nucleic acid
 <213> Zea mays

<400> 761
 ggagacttac actgatgacg tggcgcatga gattgctgga gagcttcagg ccaatcctga 60
 cctgatcatc ggaaactaca gtgacggaaa ccttggttgcg tgtttgctcg cccacaagat 120
 ggggtgttact cactgtgcca gtgcgcatgc gcctgagaaa actaagtacc ctaactccga 180
 cctctactgg aagaagtttg aggatcacta ccacttctcg tgccagttca ccactgactt 240
 gattgcaatg aaccatgccg atttcatcat ca 272

<210> 762
 <211> 287
 <212> nucleic acid
 <213> Zea mays

<400> 762
 atcgtgcacg gcgtgtctgg ctaccacatc gacccttacc agggcgacaa ggcgtcggcc 60
 ctgctcgtgg atttcttcga caagtgccag gcggaccgag ccaactggagc aagatctccc 120
 agggcggggt ccagcgtatc gaggagaagt acacctggaa gctgtactcg gagaggctga 180
 tgacctcac cggcgtgtac gggttctgga agtacgtgtc caacctggag aggcgcgaga 240
 cccggcggtta cctggagatg ctgtacgcgc tcaagtaccg caccatg 287

<210> 763
 <211> 307
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (284)
 <223>

 <400> 763

 cggacgcgtg gagcgtatcg aggagaagta cacctggaag ctgtactcgg agaggctgat 60
 gacctcaac ggcgtgtacg gggtctggaa gtacgtgtcc aacctggaga ggcgcgagac 120
 ccggcgggtac ctggagatgc tgtacgcgct caagtaccgc accatggcga gcaccgtgcc 180
 gctggccgtg gagggagagc ctccagcaag tgatgcgtga cggcggccac agacctgatc 240
 gatcgatgag cgagagggag cactcggagt gtcgtgtctt ttcncttgcc atttctttct 300
 ttctttct 307

<210> 764
 <211> 255
 <212> nucleic acid
 <213> Zea mays

<400> 764

 gacaccgtgg ggcagtacga gtcccacatc gcgttcactc ttcttgggct ctaccgtgtc 60
 gtccatggca tcgatgtttt cgatcccaag ttcaacattg tctcccttgg agcagacatg 120
 agtgtttact acccgtatac ggaaaccgac aagagactca ctgccttcca tcctgaaatc 180
 gaggagctca tctacagcga cgtcgagaac tccgagcaca agttcgtgct gaaggacaag 240
 aagaagccga tcatc 255

<210> 765
 <211> 250
 <212> nucleic acid
 <213> Zea mays

<400> 765

 gtggagctgt acggccggaa caagcggctg caggagctgg tgaacctcgt ggtcgtctgc 60
 ggcgaccatg gcaacccttc caaggacaag gaggagcagg ccgagttcaa gaagatgttt 120
 gacctcatcg agcagtacaa cctgaacggg cacatccgct ggatctccgc ccagatgaaa 180
 cgcgtccgca acggcgagct gtaccgctac atctgcgaca ccaagggcgc cttcgtgcag 240

cctgctttct

250

<210> 766
<211> 251
<212> nucleic acid
<213> Zea mays

<400> 766

gcggtctgcc aacgatcgcg acctgccatg gtggccctgc tgagatcatc gtggacgggg 60
tatctggcct gcacattgac cttaccaca gcgacaaggc cgcggatata ctggtcaact 120
tctttgacaa atgcaaggca gatccgagct actgggacaa gatctcacag ggcggcctgc 180
agagaattta tgagaagtac acctggaagc tctactccga gaggctgatg accctgaccg 240
gcgtgtacgg g 251

<210> 767
<211> 255
<212> nucleic acid
<213> Zea mays

<400> 767

gcgggaagca aggacaccgt ggggcagtac gagtcccaca tcgcgttcac tcttcctggg 60
ctctaccgtg tcgtccatgg catcgatgtt ttcgatccca agttcaacat tgttccccct 120
ggagcagaca tgagtgttta ctaccogtat acggaaaccg acaagagact cactgccttc 180
catcctgaaa tcgaggagct catctacagc gacgtcgaga actccgagca caagttcgtg 240
ctgaaggaca agaag 255

<210> 768
<211> 297
<212> nucleic acid
<213> Zea mays

<400> 768

cttctttgac aaatgcaagg cagatccgag ctactgggac aagatctcac agggcggcct 60
gcagagaatc tatgagaagt acacctggaa gctctactcc gagaggctga tgacctgac 120
cggcgtgtac gggttctgga agtacgtgag caacctggag aggcgcgaga cccgccgcta 180
catcgagatg ttctacgcc tgaagtaccg tagcctggca agccaggttc cgctgtcctt 240

cgattagtagt ggggaaagaa gaagaagaag aagcccaggc cggagaacca tcgcctg 297

<210> 769
 <211> 265
 <212> nucleic acid
 <213> Zea mays

<400> 769

cccacgcgtc cggatgcttc tgaggattaa gcagcaaggc cttgatatca ctccgaagat 60
 cctcattgtt accaggctgt tgctgatgc tgctgggact acgtgcggtc agcggctgga 120
 gaaggtcatt ggtactgagc acacagacat cattcgcgtt cccttcagaa atgagaatgg 180
 catcctccgc aagtggatct ctcgttttga tgtctggcca tacctggaga catacactga 240
 ggatgtttcc agtgaaataa tgaaa 265

<210> 770
 <211> 257
 <212> nucleic acid
 <213> Zea mays

<400> 770

caactacaag gggatgacca tgatgttgaa cgacagaatc cgcagtctca gtgctctgca 60
 aggtgcgctg aggaaggctg aggagcacct gtccacccta caagctgata cccatactc 120
 tgaatttcac cacagggttc aggaacttgg tctggagaag ggttgggggtg attgcgctaa 180
 gcgtgcacag gagactatcc acctcctctt ggacctcctg gaggccccag atccgtccac 240
 ccggagaagt tcttgga 257

<210> 771
 <211> 247
 <212> nucleic acid
 <213> Zea mays

<400> 771

atgtaagtga gctggctgtg gaggagctga gtgtttctga gtacttggca ttcaaggaac 60
 agctgggtgga tggacaatcc aacagcaact ttgtgcttga gcttgatttt gagcccttca 120
 atgcctcctt tcctcgctct tccatgtcga agtccatcgg aaatggagtg caattcctta 180
 accgacacct gtcgtccaag ttgttccagg acaaggagag tttgtacccc ttgctgaact 240

tcctcaa

247

<210> 772
<211> 270
<212> nucleic acid
<213> Zea mays

<400> 772

cccacgcgtc cgcccacgcg tccggacaag gagagcatgt accccttgct caacttcctt 60
cgcgcccaca actacaaggg gatgaccatg atgttgaacg acagaatccg cagtctcagt 120
gctctgcaag gtgcgctgag gaaggctgag gagcacctgt ccaccctaca agctgatacc 180
ccatactctg aatttcacca caggttccag gaacttggtc tggagaaggg ttgggggtgat 240
tgcgctaagc gtgcacagga gactatccac 270

<210> 773
<211> 268
<212> nucleic acid
<213> Zea mays

<400> 773

cgcgtccgca acggcgagct gtaccgctac atctgcgaca ccaagggcgc cttcgtgcag 60
cctgctttct acgaggtttt cgggctgacg gtggttgagg ccatgacctg cggcctgccc 120
acgtttgcca cagcctacgg cgggtccggcc gagatcatcg tgcacggcgt gtctggctac 180
cacatcgacc cttaccaggg cgacaaggcg tcggccctgc tcgtggactt cttcgacaag 240
tgccaggcgg acccgagcca ctggagca 268

<210> 774
<211> 246
<212> nucleic acid
<213> Zea mays

<400> 774

cctgcacatt gacccttacc acagcgacaa ggccgcggat atcctgggtca acttctttga 60
caaatgcaag gcagatccga gctactggga caagatctca cagggcggcc tgcagagaat 120
ttatgagaag tacacctgga agctctactc cgagaggctg atgaccctga ccggcgtgta 180
cgggttctgg aagtacgtga gcaccctgga gaggcgcgag acccgccgct acatcgagat 240

gttcta

<210> 775
 <211> 277
 <212> nucleic acid
 <213> Zea mays

<400> 775
 acacacgcgt ccgcggacgc gtgggcccatt actctgaatt tcaccacagg ttccaggaac 60
 ttggtctgga gaagggttgg ggtgatagcg ctaagcgagc acaggagact atccacctcc 120
 tcttggaacct cctggaggcc ccagatccgt ccaccctgga gaagttcctt ggaacgatcc 180
 ccatggtggt caatgtcgtt atcctctccc ctcatgggta cttoctcaa gctaattgtc 240
 tgggttaccc tgacaccgga ggccagggtg tctacat 277

<210> 776
 <211> 248
 <212> nucleic acid
 <213> Zea mays

<400> 776
 ggagaacgaa atgctgctga ggatcaagca gtgtggtctt gacatcacgc cgaagatcct 60
 tattgtcacc aggttgctcc ctgatgcaac tggcaccacc tgtggccagc gccttgagaa 120
 ggctcttggc accgagcact gccatatact tcgcgtgcca ttcagaacag aaaacggaat 180
 cgttcgcaag tggatctcgc gatttgaagt ctggccgtac ctggagactt aactgatga 240
 cgtggcgc 248

<210> 777
 <211> 251
 <212> nucleic acid
 <213> Zea mays

<400> 777
 ccggaaacaa ggacaccgtc ggccagtacg agtcacacat ggcgttcaca atgcctggcc 60
 tgtaccgcgt tgtccacggc attgatgtgt tcgaccccaa gttcaacatc gtgtctcctg 120
 gcgcggacct gtccatctac ttcccgtaca ccgagtcgca caagaggctg acctcccttc 180
 acccggagat tgaggagctc ctgtacagcc aaaccgagaa cacggagcac aagttcgttc 240

tgaacgacag g

251

<210> 778
<211> 283
<212> nucleic acid
<213> Zea mays

<400> 778

ggcggcgggc gttcgttgct gctctttgct tcaagagtta aatttaccta ccttgtcaag 60
gtcttggtcc atcattgacg cgggtgtcgc ttttagtagt ctgatggact gttagtagtt 120
tgcgttgctg cggttgagag ggaacgggtg tggtggtggt gtgtgtgcag tcgggtgtgg 180
tgctcccttt gtttcctgga tgggatgttg ctcttgaat aataatcgta gtggccttgg 240
agcccttttc ctgaaataag agcagcatcc tagtgcttca ctt 283

<210> 779
<211> 288
<212> nucleic acid
<213> Zea mays

<400> 779

gtgacggaaa ccttggtgct tggttgctcg cccacaagat ggggtgttact cactgtacca 60
ttgcccattg gcttgagaaa actaagtacc ctaactccga cctctactgg aagaagtttg 120
aggatcacta ccacttctcg tgccagttca ccactgactt gattgcaatg aaccatgccg 180
acttcatcat caccagtacc ttccaagaga tcgccggaaa caaggacacc gtcggccagt 240
acgagtcaca catggcggtc acaatgcctg gcctgtaccg cgttgtcc 288

<210> 780
<211> 244
<212> nucleic acid
<213> Zea mays

<400> 780

ccttcacccg gagattgagg agtcctgta cagccaaacc gagaacacgg agcacaagtt 60
cgttctgaac gacaggaaca agccaatcat cttctccatg gtcgtctcg accgtgtgaa 120
gaacttgact gggctggtgg agctgtacgg ccggaacaag cggctgcagg agctggtgaa 180
cctcgtggtc gtctgcggcg accatggcaa cccttccaag gacaaggagg agcaggccga 240

gttc 244

<210> 781
<211> 247
<212> nucleic acid
<213> Zea mays

<400> 781

acggcaagga gtccaaggac agggaggagc aggcggagtt caagaagatg tacagcctca 60
tcgacgagta caagttgaag ggccatatcc ggtggatctc ggcgcagatg aaccgcgtcc 120
gcaacgggga gctgtaccgc tacatttgcg ataccaaggg cgcattcgtg cagcctgcgt 180
tctacgaagc gttcggcctg actgtgatcg agtccatgac gtgcggtctg ccaacgatcg 240
cgacctg 247

<210> 782
<211> 261
<212> nucleic acid
<213> Zea mays

<400> 782

tgcgttctac gaagcgttcg gcctgactgt gatcgagtcc atgacgtgcg gtctgccaac 60
gatcgcgacc tgccatgggtg gccctgctga gatcatcgtg gacgggggat ctggcctgca 120
cattgaccct taccacagcg acaaggccgc ggatatcctg gtcaacttct ttgacaaatg 180
caaggcagat ccgagctact gggacaagat ctcacagggc ggccctgcaga gaatttatga 240
gaagtacacc tggaagctct a 261

<210> 783
<211> 257
<212> nucleic acid
<213> Zea mays

<400> 783

ccgcgtccgc aacggcgagc tgtaccgcta catctgcgac accaagggcg ccttcgtgca 60
gcctgctttc tacgaggctt tcgggctgac ggtggttgag gccatgacct gcggcctgcc 120
cacgtttgcc acagcctacg gcgggtccgc cgagatcatc gtgcacggcg tgtctggcta 180
ccacatcgac ccttaccagg gcgacaaggc gtcggccctg ctcgtggact tcttcgacaa 240

gtgccaggcg gacccga

257

<210> 784
<211> 251
<212> nucleic acid
<213> Zea mays

<400> 784

gacaagaaga agccgatcat cttctcgatg gcgcgtctcg accgcgtgaa gaacatgaca 60
ggcctggtgg agatgtacgg caagaacgcg cgcctgaggg agctggcgaa cctcgtgac 120
gtcgccggtg accacggcaa ggagtccaag gacagggagg agcaggcgga gttcaagaag 180
atgtacagcc tcatcgacga gtacaagttg aagggccata tccggtggat ctgggcgcag 240
atgaaccgcg t 251

<210> 785
<211> 290
<212> nucleic acid
<213> Zea mays

<400> 785

ggaagtacgt gagcaacctg gagaggcgcg agacccgccg ctacatcgag atgttctacg 60
ccctgaagta ccgtagcctg gcaagccagg ttccgctgtc cttcgattag tacggggaaa 120
gaagaagaag aagaagccca ggccgctatt ttatcgctg catttcgac tgtttcaccg 180
caattcgcat tgtagtcgt gtattggagt tatgtgtact tggtttccaa gaactttagt 240
tccttctcgt tttttttcct tgtttgagcg tttttgggca gcgctggcct 290

<210> 786
<211> 311
<212> nucleic acid
<213> Zea mays

<400> 786

cggacgcgtg gcgcgacgcg tgggctgcca acttgagaa gttccttgga actataccaa 60
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ggataccctg aactggcgg tcaggttgtg tacattctgg atcaagtccg tgctttggag 180
aatgagatgc ttctgaggat taagcagcaa ggccttgata tcaactccgaa gatcctcatt 240

gttaccaggc tgttgctga tgctgctggg actacgtgcg gtcagcggct ggagaaggtc 300
attgggtactg a 311

<210> 787
<211> 258
<212> nucleic acid
<213> Zea mays

<400> 787

cttgatthttg agcccttcaa tgcctccttt cctcgtcctt ccatgtcgaa gtccatcgga 60
aatggagtg aattccttaa ccgacacctg tcgtccaagt tgttccagga caaggagagt 120
ttgtaccctt tgctgaactt cctcaaggct cataactaca agggcacgac gatgatgttg 180
aatgacagaa tccaaagcct tcgtgggtctc caatcatccc tgagaaaggc agaggagtat 240
ctactgagtg ttcctcaa 258

<210> 788
<211> 244
<212> nucleic acid
<213> Zea mays

<400> 788

atgagtgttt actaccgta tacggaaacc gacaagagac tcaactgcctt ccatcctgaa 60
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aagaagaagc cgatcatctt ctcgatggcg cgtctcgacc gcgtgaagaa catgacaggc 180
ctggctgaga tgtacggcaa gaacgcgcgc ctgagggagc tggcgaacct cgtgatcggt 240
gccg 244

<210> 789
<211> 270
<212> nucleic acid
<213> Zea mays

<400> 789

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gagcaggccg agttcaagaa gatgtatgac ctcatcgagc agtacaacct gaacgggcac 120
atccgctgga tctccgcca gatgaaccgc gtccgcaacg gcgagctgta ccgctacatc 180
tgcgacacca agggcgctt cgtgcagcct gctttctacg aggccttcgg gctgacgggtg 240

270

<400> 790

<210> 791

<400> 791

<210> 792

<400>	792
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282

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 atcgatgagc gagagggagc actcggagtg tctgtctttt tcccttgcca tttctttctt 180
 tcttcttttt ccttcccgga ggcgaaaaaa aaagagtctg cttttgctag gcggcgggcg 240
 ttcgttgctg ctctttgctt caagagttaa atttacctac cttgtca 287

<210> 793
 <211> 244
 <212> nucleic acid
 <213> Zea mays

<400> 793

caccgagcac tgccatatcc ttcgcgtgcc attcagaaca gaaaacggaa tcgttcgcaa 60
 gtggatctcg cgatttgaag tctggccgta cctggagact tacactgatg acgtggcgca 120
 tgagattgct ggagagcttc aggccaatcc tgacctgatc atcggaaaact acagtgacgg 180
 aaaccttggt gcgtgtttgc tcgcccacaa gatgggtgtt actcactgta ccattgcccc 240
 tgcg 244

<210> 794
 <211> 244
 <212> nucleic acid
 <213> Zea mays

<400> 794

caccacctgt ggccagcgcc ttgagaaggt ccttggcacc gagcactgcc atatccttcg 60
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 gccgtacctg gagacttaca ctgatgacgt ggcgcatgag attgctggag agcttcaggc 180
 caatcctgac ctgatcatcg gaaactacag tgacggaaac cttgttgctg gtttgctcgc 240
 ccac 244

<210> 795
 <211> 282
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (243), (253), (258), (267), (269) ... (271), (274),
 (277) ... (278), (281)

<223> unsure at all n locations

<400> 795

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cctgtaccgc gttgtccacg gcattgatgt gttcgacccc aagttcaaca tcgtgtctcc	180
tggcgcggac ctgtccatct acttcccgta caccgagtcg cacaagaggc tgacctcctt	240
tcnccgggggt ttnggggncc tttaatncnn ncgnggnntg ng	282

<210> 796

<211> 249

<212> nucleic acid

<213> Zea mays

<400> 796

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ggcctggttg agatgtacgg caagaacgcg cgcttgaggg agctggcgaa cctcgtgata	120
gtcgccggtg accacggcaa ggagtcgaag gacagggagg agcaggcgga gttcaagaag	180
atgtacagcc tcatcgacga gtacaagttg aagggccata tccggtggat ctcggcgcag	240
atgaaccgc	249

<210> 797

<211> 248

<212> nucleic acid

<213> Zea mays

<400> 797

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ggcggtcagg	ttgtgtacat	tctggatcaa	gtccgtgctt	tggagaatga	gatgcttctg	120
aggattaagc	agcaaggcct	tgatatcact	ccgaagatcc	tcattgttac	caggctgttg	180
cctgatgctg	ctgggactac	gtgcggtcag	cggctggaga	aggtcattgg	tactgagcac	240
acaqacat						248

<210> 798

<211> 295

<212> nucleic acid

<213> Zea mays

<400> 798

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gaggctttcg ggctgacggt gggtgaggcc atgacctgcg gcctgccac gtttgccaca 120
gcctacggcg gtccggccga gatcatcgtg cacggcgtgt cggctaccac atcgaccctt 180
accagggcga caaggcgctg gccctgctcg tggacttctt cgacaagtgc caggcggacc 240
cgagccactg gagcaagatc tcccagggcg ggctccagcg tatcgaggag aagta 295

<210> 799

<211> 255

<212> nucleic acid

<213> Zea mays

<220>

<221> unsure

<222> (2), (56)

<223> unsure at all n locations

<400> 799

anagatgttt gacctcatcg agcagtacaa cctgaacggg cacatccgct ggatcnccgc 60
ccagatgaac cgcgtccgca acggcgagct gtaccgctac atctgcgaca ccaagggcgc 120
cttcgtgcag cctgctttct acgaggcttt cgggctgacg gtggttgagg ccatgacctg 180
cggcctgccc acgttcgcca ccgcctacgg cgccggccg agatcatcgt gcacggcgtg 240
tctggctacc acatc 255

<210> 800

<211> 244

<212> nucleic acid

<213> Zea mays

<400> 800

cctgaacggg cacatccgct ggatctccgc ccagatgaac cgcgtccgca acggcgagct 60
gtaccgctac atctgcgaca ccaagggcgc cttcgtgcag cctgctttct acgaggcttt 120
cgggctgacg gtggttgagg ccatgacctg cggcctgccc acgtttgcca cagcctacgg 180
cggtcgggcc gagatcatcg tgcacggcgt gtctggctac cacatcgacc cttaccaggg 240
cgac 244

gagttatgtg tacttggttt ccaagaactt tggttccttc tcgttttttt tccttgtttg 360
agcggttttg ggcagcgctg gcttggttcc tagtatggtg ggaattggct gcaccttt 418

<210> 1040
<211> 439
<212> nucleic acid
<213> Zea mays

<400> 1040
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ggacagcgac gtcgagaact ccgagcacia gtctgtgctg aaggacaaga agaagccgat 120
catcttctcg atggcgctg tcgaccgct gaagaacatg acaggcctgg tggagatgta 180
cggaagaac gcgcgcctga gggagctggc gaacctctg atcgctgccg gtgaccacgg 240
caaggagtcc aaggacaggg aggagcatgc tgagttcaag aagatgtaca gcctcatcga 300
cgagtacaag ttgaagggcc atatccggtg gatctcggcg cagatgaacc gggccgcaa 360
acgggagctg taccgtaca tttgtgatac caagggcgca ttccggcagc ctgcgttcta 420
cgaagcgttc ggctgact 439

<210> 1041
<211> 392
<212> nucleic acid
<213> Zea mays

<400> 1041
ctccgaagat cctcattgtt accaggctgt tgctgatgc tgctgggact acgtgcgggc 60
agcggctgga gaaggtcatt ggtactgagc acacagacat cattcgctt cccttcagaa 120
atgagaatgg catcctccgc aagtggatct ctggttttga tgtctggcca tacctggaga 180
catacactga ggatgtttcc agtgaaataa tgaaagaaat gcaggccaag cctgacctta 240
tcattggcaa ctacagcgat ggcaacctag tcgccactct gctcgcgcac aagttgggag 300
tactcagtg taccatcgt catgccttgg agaaaaccaa atacccaac tcggacatat 360
acttgacaa attcgacagc cagtaccact tc 392

<210> 1042
<211> 418
<212> nucleic acid

[illegible][illegible][illegible][illegible][illegible][illegible][illegible]

Q What are the most common reasons why people do not take their medicines as prescribed?

[illegible]

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tgaatgacag aatccaaagc cttcgtggtc tccaatcatc cctgagaaaag gcagaggagt 120
atctactgag tgttctcaa gacactccct actcggagtt caaccatagg ttccaagagc 180
ttggcttggg gaaggggttg ggtgacactg cgaagcgtgt actcgacaca ctccacttgc 240
ttctcgacct tctggaggcc cctgatcctg ccaacttggg gaagttcctt ggaactatac 300
caatgatgtt caacgttggt atcctgtctc ctcattggta cttcgcccag tccaatgtgc 360
ttggataccc tgacac 376

<210> 1045
<211> 412
<212> nucleic acid
<213> Zea mays

<400> 1045
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atcggctgga gaaggtcatt ggtactgagc acacagacat cattcgcgtt cccttcagaa 120
atgagaatgg catcctccgc aagtggatct ctcgttttga tgtctggcca tacctggaga 180
catacactga ggatgtttcc agtgaaataa tgaaagaaat gcaggccaag cctgacctta 240
tcattggcaa ctacagcgat ggcaacctag tcgccactct gctcgcgcac aagttgggag 300
tcaactcagtg taccatcgct catgccttgg agaaaaccaa ataccccaac tcggacatat 360
acttgacaa attcgacagc cagtaccact tctcttgcca gttcacagct ga 412

<210> 1046
<211> 424
<212> nucleic acid
<213> Zea mays

<400> 1046
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cagtgtacca tcgctcatgc cttggagaaa accaaatacc ccaactcgga catctacttg 120
gacaagttcg acagccagta ccacttctct tgccagttca cagctgacct tattgccatg 180
aaccacactg atttcatcat caccagcaca ttccaagaaa tcgcgggaag caaggacacc 240
gtggggcagt acgagtccca catcgcgttc actcttctcg ggetctaccg tgctgtccat 300

ggcatcgatg ttttcgatcc caagttcaac attgtctccc ctggagcaga catgagtgtt 360
 tactacccgt atacggaaac cgacaagaga ctactgcct ttcacacctga aatcgaggag 420
 ctca 424

<210> 1047
 <211> 433
 <212> nucleic acid
 <213> Zea mays
 <400> 1047

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 ccagatgaac cgcgtccgca acggcgagct gtaccgctac atctgcgaca ccaagggcgc 120
 cttcgtgcag cctgctttct acgaggcttt cgggctgacg gtggttgagg ccatgacctg 180
 cggcctgccc acgtttgccca cagcctacgg cggtcgggcc gagatcatcg tgcacggcgt 240
 gtctggctac cacatcgacc cttaccaggg cgacaaggcg tcggccctgc tcgtggactt 300
 cttcgacaag tgccaggcgg acccgagcca ctggagcaag atctcccagg gcgggctcca 360
 gcgtatcgag gagaagtaca cctgtaagct ctactcggag aggctgatga ccctaacggc 420
 gtgtacgggt tct 433

<210> 1048
 <211> 447
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (361)
 <223>

<400> 1048
 ctgatectgc caacttggag aagttccttg gaactatacc aatgatgttc aatgttgatga 60
 tccgtttctcc tcatggctac ttcgctcagt ccaatgtgct tggataccct gacactggcg 120
 gtcaggttgt gtacattctg gatcaagtcc gtgctttgga gaatgagatg cttctgagga 180
 ttaagcagca aggccttgat atcaactccga agatcctcat tgttaccagg ctgttgacctg 240
 atgctgctgg gactacgtgc ggtcagcggc tggagaaggt cattggtact gagcacacag 300

acatcattcg cgttccgttc agaaatgaga atggcatcct ccgcaagtgg atctctcggt 360
 ntgatgtctg gccatacctg gagacataca ctgaggatgt ttccagtgaataaatgaaag 420
 aaatgcaggc caagcctgac cttatca 447

<210> 1049
 <211> 383
 <212> nucleic acid
 <213> Zea mays

<400> 1049

acctcatcga gcagtacaac ctgaacgggc acatccgctg gatctccgcc cagatgaacc 60
 gcgtccgcaa cggcgagctg taccgctaca tctgcgacac caagggcgcc ttcgtgcagc 120
 ctgctttcta cgaggctttc gggctgacgg tggttgaggc catgacctgc ggctgcca 180
 cgtttgccac agcctacggc ggtccggccg agatcatcgt gcacggcgctg tctggctacc 240
 acatcgaccc ttaccagggc gacaaggcgt cggccctgct cgtggacttc ttcgacaagt 300
 gccaggcgga cccgagccac tggagcaaga tctcccaagg cgggcttcaa cgtatcgagg 360
 agaagtacac ctggaagctt tac 383

<210> 1050
 <211> 278
 <212> nucleic acid
 <213> Zea mays

<400> 1050

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 cggctctgcca acgatcgca cctgccatgg tggccctgct gagatcatcg tggacgggggt 120
 atctggcctg cacattgacc cttaccacag cgacaaggcc gcggatatcc tgggtcaactt 180
 ctttgacaaa tgcaaggcag atccgagcta ctgggacaag atctcacagg gcggcctgca 240
 gagaatctat gagaagtaca cctggaagct ctactccg 278

<210> 1051
 <211> 408
 <212> nucleic acid
 <213> Zea mays

<400> 1051

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atggtggccc tgctgagac atcgtggacg gggatatctg cctgcacatt gacccttacc 360
acagcgacaa ggccgcggat atcctggtca acttctttga caaatgcaag gcagatccga 420
gctactggga caagatctc 439

<210> 1054
<211> 416
<212> nucleic acid
<213> Zea mays

<400> 1054

cggacgcgtg gggttgcctg atgctgctg gactacgtgc ggtcagcggc tggagaaggt 60
cattggtact gagcacacag acatcattcg cgttcccttc agaaatgaga atggcatcct 120
ccgcaagtgg atctctcggt ttgatgtctg gccatacctg gagacataca ctgaggatgt 180
ttccagtga ataataaa aaatgcacgc caagcctgac cttatcattg gcaactacag 240
cgatggcaac ctagtcgcca ctctgctcgc gcacaagttg ggagtcactc agtgtaccat 300
cgctcatgcc ttggagaaaa ccaaataccc caactcggac atatacttg acaaattcga 360
cagccagtac cacttctctt gccagttcac agctgacctt attgccatga accaca 416

<210> 1055
<211> 375
<212> nucleic acid
<213> Zea mays

<400> 1055

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taccgtata cggaaaccga caagagactc actgccttcc atcctgaaat cgaggagctc 120
atcaacagcg acgtcgagaa ctccgagcac aagttcgtgc tgaaggacaa gaagaagccg 180
atcatcttct cgatggcgcg tctcgaccgc gtgaagaaca tgacaggcct ggtggagatg 240
tacggcaaga acgcgcgcct gagggagctg gcgaacctcg tgatcgctgc cggtgaccac 300
ggcaaggagt ccaaggacag ggaggagcat gcggagttca agaagatgta cagcctcatc 360
gacgagtaca agttg 375

<210> 1056

<211> 387
 <212> nucleic acid
 <213> Zea mays

 <400> 1056

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 accgtggggc agtacgagtc ccacatcgcg ttcactcttc ctgggctcta ccgtgtcgtc 120
 catggcatcg atgttttoga tcccaagttc aacattgtct ctcttgagc agacatgagt 180
 gtttactacc cgtatacgga aaccgacaag agactcactg ctttccatcc tgaaatcgag 240
 gagctcatct acagcgacgt cgagaactcc gagcacaagt tcgtgctgaa ggacaagaag 300
 aagccgatca tcttctcgat ggcgcgtctc gaccgcgtga agaacatgac aggcctgggtg 360
 gagatgtacg gcaagaacgc gcgcctg 387

<210> 1057
 <211> 383
 <212> nucleic acid
 <213> Zea mays

 <400> 1057

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 tacgctgagg atgtttccag tgaaataatg aaagaaatgc aggccaagcc tgaccttate 120
 attggcaact acagcgatgg caacctagtc gccactctgc tcgcgcacaa gttgggagtc 180
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 ttggacaagt tcgacagcca gtaccacttc tcttgccagt tcacagctga cttattgcc 300
 atgaaccaca ccgatttcat catcaccagc acattccaag aaatcgcggg aagcaaggac 360
 accgtggggc agtacgaggt cca 383

<210> 1058
 <211> 360
 <212> nucleic acid
 <213> Zea mays

 <400> 1058

 cccacgcgtc cgctgtaccg ctacatctgc gaacaccaag ggcgccttcg tgcagcctgc 60
 tttctacgag gctttcgggc tgacgggtgtg tgaggccatg acctgcggcc tgcccacgtt 120

tgccacagcc tacggcggtc cggccgagat catcgtgcac ggcgtgtctg gctaccacat 180
 cgacccttac cagggcgaca aggcgtcggc cctgctcgtg gactttcttcg acaagtgccca 240
 ggcggacccg agccactgga gcaagatctc ccagggcggg ctccagcgta tcgaggagaa 300
 gtacacctgg aagctctact cggagaggct gatgaccctc accggcgtgt accggttctg 360

<210> 1059
 <211> 404
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (69)
 <223>

<400> 1059
 acgcccacgc gtccgcccac gcgtccgtcg aggagtacaa gttgaagggc catatccggg 60
 ggatgtctnc tcagatgagc cgcgtccgca acggggagct gtaccgctac atttgcgata 120
 cgaagggcgc attcgtgcag cctgcgttct acgaagcggt cggcctgact gtgatcgagt 180
 ccatgacgtg cgggtctgcca acgatcgca cctgccatgg tggccctgct gagatcatcg 240
 tggacggggg atctggcctg cacattgacc cttaccacag cgacaaggcc gcggatatcc 300
 tgggtcaactt ctttgacaaa tgcaagggag atccgagcta ctgggacaag atctcacagg 360
 gcggcctgca gagaatctat gagaagtaca cctggaagct ctac 404

<210> 1060
 <211> 424
 <212> nucleic acid
 <213> Zea mays

<400> 1060
 gcgacaaggc cgcggatatc ctgggtcaact tctttgacaa atgcaaggca gatccgagct 60
 agtgggacaa gatctcacag ggcggcctgc agagaatcta tgagaagtac acctggaagc 120
 tctactccga gaggtgatg accctgaccg gcgtgtacgg gttctggaag tacgtgagca 180
 acctggagag gcgcgagacc cgccgctaca tcgagatggt ctacgccctg aagtaccgta 240
 gcctggcaag ccaggttccg ctgtccttcg attagtacgg ggaaagaaga agaagaagaa 300
 gccagggccg gagaaccatc gcctgcattt cgatctgttt caccgcaatt cgcattgtta 360

gtcgtgtatt ggagttatgt gtacttggtt tccaagaact ttggttcctt ctcgtatatt 420
ttcc 424

<210> 1061
<211> 337
<212> nucleic acid
<213> Zea mays

<400> 1061

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acgtgcgggc tgccaacgat cgcgacctgc catggtggcc ctgctgagat catcgtggac 120
ggggtatctg gcctgcacat tgacccttac cacagctgac aaggccgctg atatcctggt 180
caacttcttt gacaaatgca aggcagatcc gagctactgc gacaagatct cacagggcgg 240
cctgcagaga atctatgaca agtgcacctg gaagctctac tccgagaggc tgatgaccct 300
gaccggcgtg tacgggttct ggaagtacgt gagcaac 337

<210> 1062
<211> 384
<212> nucleic acid
<213> Zea mays

<400> 1062

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atcatcttct cgatggcgcg tctcagaccg gtgaagaaca tgacaggcct ggtggagatg 120
tacggcaaga acgcgcgcct gagggagctg gcgaacctcg tgatcgtcgc cggagaccac 180
ggcaaggagt tcaaggacag ggaggagcag gcggagttca agaagatgta cagcctcatc 240
gacgagtaca agttgaaggg ccatatccgg tggatctcgg cgcagatgaa ccgcgtgcgc 300
aacggtgagc tgtaccgtta catttgcgat accaaggcg cattcgtgca gcctgcgttc 360
tacgaaacgt tcggcctgac tgtg 384

<210> 1063
<211> 413
<212> nucleic acid
<213> Zea mays

<400> 1063

ggcaaccctt ccaaggacaa ggaggagcat gccgagttca agaagatggt tgacctcatg 60
gagcagtaca acctgaacgg gcacatccgc tggatctccg cccagatgaa ccgcgtccgc 120
aacggcgagc tgtaccgcta catctgcgac accaagggcg ccttcgtgca gcctgctttc 180
tacgaggctt tcgggctgac ggtgggtgag gccatgacct gcggcctgcc cacgtttgcc 240
acagcctacg gcgggtccggc cgagatcatc gtgcacggcg tgtctggcta ccacatcgac 300
ccttaccagg gcgacaaggc gtcggccctg ctcggtggact tcttcgacaa gtgccaggcg 360
gacccgagcc actggagcaa gatctcccat ggcgggctcc agcgtatcga gga 413

<210> 1064
<211> 306
<212> nucleic acid
<213> Zea mays

<400> 1064

gcgggaagca aggacaccgt ggggcagttc gagtcccaca tcgcgttcac tcttgctggg 60
ctctaccgtg tcgtccatgg catcgatggt ttgatccca agttcaacat tgtctcccct 120
ggagcagaca tgagtgttta ctaccggtat acggaaaccg acaagagact cactgccttc 180
catcctgaaa tcgaggagct catctacagc gacgtccaga actccgagca caagttcgtg 240
ctgaaggaca agaagaagcc gatcatcttc tcgatggcg gtctcgaccg cgtgaagaac 300
atgaca 306

<210> 1065
<211> 379
<212> nucleic acid
<213> Zea mays

<400> 1065

ggacaccgtg gggcagtagc agttcctgat tgtgtttact cttcctgggc tctagcgcgt 60
ggtccatggc atcgatgttt tcgatcccaa gttcaacatt gtctcccctg gagcagacat 120
cactgtttac taccggtata cggaaaccga caagagactc actgccttgc atcctgaaat 180
cgaggagctc atctacagcg acttcgataa ctccgagcac aatttcatgc tgaaggacta 240
catgatgccg atcatcttct cgatggcgcg tctataccgc gtgaagaaca tgactggcct 300
gatcgagatg tacggcatga tcgcgcgcct gagggagctg tcgaacctcg tgatcgttgc 360

379

<400> 1066

<400>	1067
-------	------

<400> 1068

374

[illegible]

<400> 1071

<210>	1072
<211>	480
<212>	nucleic acid
<213>	Zea mays

<400>	1072
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376

<210> 1073
 <211> 420
 <212> nucleic acid
 <213> Zea mays

<400> 1073

cccacgcgtc cgcaagatct cacagggcgg cctgcagaga atctatgaga agtacagggtg 60
 gaagctctac tccgagaggc tgatgacctt gaccggcgtg tacgggttct ggaagtacgt 120
 gagcaacctg gagaggcgcg agaccgcgcg ctacatcgag atgttctacg ccctgaagta 180
 ccgtagcctg gcaagccagg ttccgctgtc cttcgattag tacggggaaa gaaggagaag 240
 aagaagaaga agcccaggcc ggagaaccat cgcctgcatt tcgatctgtt tcaccgcaat 300
 tcgcattgtt agtcgtgtat tggagttatg tgtacttggg ttccaagaac tttggttcct 360
 tgtttttttt tctttcttgt ttgagcgttt ttgggcagcg ctggcctggg tcctagtatg 420

<210> 1074
 <211> 394
 <212> nucleic acid
 <213> Zea mays

<400> 1074

actgcgacct ctactggaag aagtttgagt tatcacttcc acttctcgtg ccagttcacc 60
 ggtgacgggtg attgcaatga accatgccga cttcatcatc accagtacct tccaagagat 120
 cgccggaaac aaggacaccg tcggccagta cgagtcacac atggcggttca caatgcctgg 180
 cctgtaccgc gttgtccacg gcattgatgt gttcgacccc aagttcaaca tcgtgtctcc 240
 tggcgcgagc ctgtccatct actttccgta caccgagtcg cacaagaggc tgaccttcct 300
 tcaccgggag attgaagagc ttctgtacag ccaaaccgag aacacggagc acaagttccg 360
 ttctgaacga caggaacaag ccaatcattt tttc 394

<210> 1075
 <211> 403
 <212> nucleic acid
 <213> Zea mays

<400> 1075

cccgtacacc gagtcgcaca agaggctgac ctcccttcac ccggagattg aggagctcct 60

<211>	208
<212>	nucleic acid
<213>	Zea mays

<211> 318
 <212> nucleic acid
 <213> Zea mays

 <400> 1084

 gggatgttgc tccttgaata ataatcgtag tggccttggga gccctttttcc tgaaataaga 60
 gcagcatcct agtgcttcac tttgcaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180
 aaaaaaaaaa aaaaaaaaaa ggaatcaaata caaaaatatc aaaacttaaa aaaattaata 240
 agaaataaaa aaaatatact aatgattaac caaaataaaa acaaatatca atttattaaa 300
 aactcaaaca aggaaaaa 318

<210> 1085
 <211> 451
 <212> nucleic acid
 <213> Zea mays

 <400> 1085

 agcagacatg agtgtgtact acccgatatac ggaaaccgac tagagactca ctgccttcca 60
 tcctgaaatc gaggagctca tctacagcga cgctcgagaac tccgagcaca agttcgtgct 120
 gaaggacaag aagaagccga tcatcttctc gatggcgctg ctcgaccgcg tgaagaacat 180
 gacaggcctg gtcgagatgt acggcatgaa cgcgcgcctg agggagctgg cgaacctcgt 240
 gatcgttgcc ggtgaccact gcaaggagtc caaggacagg gaggagcagg cggagttcaa 300
 gaagatgtac agcctcatcg acgagtacaa gttgaagggc catatccggt ggatctcggc 360
 gcagatgaac cgcgtccgca acggggagct gtaccgctac atttgcgata cgaagggcgc 420
 attcgtgcag cctgcgttct acgaagcgtt c 451

<210> 1086
 <211> 351
 <212> nucleic acid
 <213> Zea mays

 <400> 1086

 gctagctctc tgttgaccat tgcgtattct gaaccatcga gccatggctg ccaagcgtac 60
 tggcctccac agtcttcgcg aacgccttgg tgccaccttc tcctcccatc ccaatgaact 120

gatagcactc ttttccaggt atgttcacca gggcaaggga atgcttcagc gccatcagct 180
 gcttgcgagg tttgatgcc tggttgatag tgacaaggag aagtatgcac cctttgaaga 240
 cattcttcgt gctgctcacg aagcaattgt gctcccccca tgggttgac ttgctatcag 300
 gccaaaggcct cgtgtctggg attacattcg ggtgaatgta agtgagcttg c 351

<210> 1087
 <211> 220
 <212> nucleic acid
 <213> Zea mays

<400> 1087

gcacgaggcc aggcgacgag cgccggctcg tctcgccat cgacggcggc ctgttcgagc 60
 actacgccga gttcaggaag cgccctggagg ccacgctggt ggagctgctc ggggaggagg 120
 cgtctaggct ggtggaggtc aagctcacca aggacgggtc tggcctcgga gccgccctca 180
 ttgcagctgc ccaactcgag tactgaacgc ccaacggccg 220

<210> 1088
 <211> 313
 <212> nucleic acid
 <213> Zea mays

<400> 1088

cggagatgcg cgccggactg cgcaggacgg cggcagcaag atcaagatga tctctcctt 60
 cgtcgacaac ctccccacgg ggaacgaaga gggcgtcttc tacgccttgg accttggcgg 120
 aacgaacttc cgcgtgctgc gcgtgcagct ggccgggaag gacaggcgtg tgtgcaagcg 180
 agagtccaag gaggtgtcca tccctcctca cctcatgtca ggcaacgcat cggagctgtt 240
 tggcttcacg gcctcggcgc tagctaagta cgtcgccgcg gcgggcgaaa gggacggcaa 300
 gcagagagag ctc 313

<210> 1089
 <211> 314
 <212> nucleic acid
 <213> Zea mays

<400> 1089

gttcatctcc atgcgcacct gactcggact cttgatttgc tctcgcggg ggttcggtcc 60

The first thing I noticed when I stepped out of the car was the cold, crisp air. It was a relief after the warm, humid weather of the city. I walked towards the entrance of the building, my heart pounding with anticipation. The architecture was grand, with high ceilings and ornate details. I found a quiet corner to sit down, my mind racing with thoughts of the future. The silence was broken by the sound of footsteps, and I looked up to see a man in a suit walking towards me. He smiled and greeted me warmly, his hand shaking mine. We walked together through the halls, the walls lined with portraits of people I didn't know. The atmosphere was formal yet welcoming. I felt a sense of belonging, a place where I could start anew. The journey had been long, but it was worth it. I was finally home.

<400> 1090

<400> 1091

<400> 1092

caaagacaaa ttgctaggtg acttttagcca acaaaggact gtagttgcta ttgacgggtgg 60
cctatacgag cactacaaga agttcagtg ctcgctagag gcgacgctca cagacctgct 120
cggcgaggag gttgcctcat cggttgttgt caagttggcc aacgacggct caggaattgg 180
agctgcactt cttgctgctt cgcactccca gtatgctgaa gctgcatagt tctaggagct 240
cgggggtcct agtgtaacct tttttt 266

<210> 1093
<211> 307
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (283)
<223>

<400> 1093

ccgcgatgca ccatgacggc acgcctgacc tgagagtcgt ggcggagaag ctggccgaca 60
acctcagggc cagggacacg tccttggaca cgaggaagat ggtggtcgag atctgcgaca 120
tcgtcaccgg gacgtctgca cggctggccg cggcggggat cgtcgggatc ctcaggaaga 180
tcggtcgagc ggcgccaggc gacgagcgcc ggtacgtcgt cgcgatcgac ggcggcctgt 240
tcgagcacta cgccgagttc aggggaagcgc ctgtagccac gcntagttag ctgctcgggg 300
gagagcg 307

<210> 1094
<211> 260
<212> nucleic acid
<213> Zea mays

<400> 1094

cccacgcgtc cgcccacgcg tccggataaa tccttagact tcgaaagttt gaaccctggt 60
gagcagatat atgaaaagat gatttctgga atgtatcttg gagaaattgt ccggaggatc 120
ctgctgaaac tggctcatga tgcttcattg tttggggatg ttgttcctcc gaaactggaa 180
cagctattta tactgaggac gccagatatg tcagccatgc accatgacac ctcacatgat 240
ctcaaacacc tgggagctaa 260

<210> 1095
 <211> 277
 <212> nucleic acid
 <213> Zea mays

<400> 1095

gaagataggc cgggacaaag taccaagcag tggcagtaaa atgccaagga ctgtaattgc 60
 cttggatggg gggctctatg agcattacaa gaagttcagc agctgcgtcg aagcaactct 120
 tacagacttg ctcggcgaag aggcctcttc ctccgtgggt gccaaagctgg ccaacgatgg 180
 ctctggcatt ggagctgctc tccttgacgc ctcacactcc cagtatggcg agagtgacta 240
 gtcttgaaaa ccggtgtgga tcgaacttcg agtgtag 277

<210> 1096
 <211> 206
 <212> nucleic acid
 <213> Zea mays

<400> 1096

gcagcatatg tggagcatgc aaatgcaatt cctaaatgga cgggggttact gcctaaatct 60
 ggaaacatgg taattaatac ggaatgggga agcttttaaat ccggcaagct tcctctctca 120
 gaatacgaca aagccatgga ctttgaaagt ttgaaccctg gagagcagat atacgaaaaa 180
 atgatctctg gcatgtatct gggaga 206

<210> 1097
 <211> 343
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (79), (167), (228), (231), (233) ... (235), (277), (313), (321)
 <223> unsure at all n locations

<400> 1097

ggcattagtc aatgatacag tgggcacatt ggctgggtggg agatatatgg ataccgatgt 60
 agttgcagct gtaatatnng gcaactggtag aaatgcagca tatgtggagc atgcaaagtc 120
 aattcctaaa tggactgggt tactgcctaa atctggaaaag atggtantta atacagagtg 180
 ggggagcttc aaatccaaca aacttcctct ttcagaatat gacaaagnca ncnnncttga 240

aagtttgaac ctggagagca gatattacga gaaatgnttc tggatatgtac tcggagagat 300
tggtcgaaga atntactgaa ntggccatga gctctctatt ggg 343

<210> 1098
<211> 257
<212> nucleic acid
<213> Zea mays

<400> 1098

gggttttttga ttgaagatgt gggtgggaaa gatgtggctc aatgcttaaa tgaagctctt 60
gctaggagtg gactaaatgt gcgagttact gcactgggtga atgacactgt ggggacgtta 120
gctctaggctc attatcacga tgaggataca gtggctgctg tgataatcgg tgctggcacc 180
aatgcttgct atatcgaacg cactgatgca attattaaat gtcagggctc tcttacaac 240
tctggtgcca tggttgt 257

<210> 1099
<211> 286
<212> nucleic acid
<213> Zea mays

<400> 1099

gactagatgt acggtagtag ctcggaatcg gctgagcaaa acctgggcgc taagctgaag 60
gacattcttg gggttcctga tacttctctg gacgcaagat acatcactct tcatgtgtgc 120
gaccttgctg cagagagaag tgcacgctg gctgctgctg gtatatatcg tattctgaag 180
aagctgggta aagacaaatt gctaggtgac tgatacaaac aaaggactgt agttgctatt 240
gacggtggcc tatacgagca ctacaagaag ttcagtgcct gcctag 286

<210> 1100
<211> 254
<212> nucleic acid
<213> Zea mays

<400> 1100

gaaacatctg atctgaagat tgtggccgaa aattttgaac aaaacctaga gattacaggc 60
acatccttgg aggctcgtaa gctggctggt gaaatctgtg acattgtggc gacaagagca 120
gcccggctgg ctgctgcggg gcttgcaggg atcctcatga agatcgggag agatcacagc 180

gtcgaggacc aacgggtcagt catcgccatc gacggaggac tgttcgagca ctacaccaaaa 240
ttccgccggt gctt 254

<210> 1101
<211> 303
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (61)
<223>

<400> 1101

tctcccttga tgatgagacg caaaatcgca atgatcaggg gtttgaaaaa atgatattctg 60
nggattttatc ttgggggaaat tgcaaggctg gtgctgcac gaattggctct agaattcagat 120
gtcttttggtg atgccgctga taatttatca accccttcac attgagcaca ccactttctgg 180
ctgcaattcg caaggacgat tcaccagatc tgagcgaagt cagaaggata ttgcaagacc 240
atctgaagat accggacact cctctgacaa ctcggaagct agtcgtcaaa gtctgcgaca 300
tcg 303

<210> 1102
<211> 263
<212> nucleic acid
<213> Zea mays

<400> 1102

gtttgttgac gatgatgaga agtgcgctaa catttcgaat ggcaagaagc gagatctagg 60
gttcacgttt tcgttcccag tgaagcagcg ttctgtagct tccggtacgc ttgtcaagtg 120
gacaaaggca ttttccatta atgatgctgt aggccaagat gtggtggctg aactgcaaac 180
agccatggag aagcaaggtc tggacatgca tgtagctgca ttgattaatg atgctgttgg 240
gacgctggcg ggagcaaggt act 263

<210> 1103
<211> 270
<212> nucleic acid
<213> Zea mays

<400> 1103

ctttgttgac gatgatgaga agtgcgctaa catttcgaat ggcaagaaga cgagtctagg 60
gttcacgttt tcgttcccag tgaagcagcg ttctgtagct tccggtacgc ttgtcaagtg 120
gacaaaggca ttttccatta atgatgctgt aggcgaagat gtggtggctg aactgcaaac 180
agccatggag aagcaaggtc tggacatgca tgtagctgca ttgattaatg atgctgttgg 240
gacgctggcg ggagcaaggc actacgacaa 270

<210> 1104
<211> 279
<212> nucleic acid
<213> Zea mays

<400> 1104

gcgtcgagga ccaacgggtca gtcacgcga tcgacggagg actgttcgag cactacacca 60
aattccgccg gtgcttggag accacactgg gtgagctgct aggagacgag gcgtccaagg 120
cgggtggccat caagcatgcc gatgacggct caggaatagg tgctgccctg attgcagctt 180
cacagtctca gtacaaaaac gacttagtgg ccgtaagca tgcagatgac gggtcaggag 240
tcaagtatgc agaagacaag cgtgcagatg acggttcag 279

<210> 1105
<211> 349
<212> nucleic acid
<213> Zea mays

<400> 1105

tggcgacaag agcagcccgg ctggctgctg cggggcttgc agggatcctc atgaagatcg 60
ggagagatca cagcgtcgag gaccaacggc cagtcacgc catcgacgga ggactgttcg 120
agcactacac caaattccgc cgggtgcttg agaccacact gggtgagctg ctaggagacg 180
aggcgtccaa ggcggtggcc atcaagcatg ccgatgacgg ctcaggaata ggtgctgccc 240
tgattgcagc ttcacagtct cagtacaaaa acgacttagt ggccgtcaag catgcaatga 300
cgggttcagga gtcaagtatg cagaagacaa gcgtgcagat gacggttca 349

<210> 1106
<211> 338
<212> nucleic acid
<213> Zea mays

<400> 1106

ctttcgtgtc atccgggtcc aacttggcgg aagggacaga cgtgtcgtga agccacagta 60

tgaagagggtc tccattccgc ctcatcttat ggttgggaact tctacggaac tatttgattt 120

cattgctgct gagttggaaa aatttgtgcg gactgaagga gaagatttcc acctaccaga 180

tagcaagcag agggaaactgg gtttcacctt ttctttccca gtgcaccaaa catctatatc 240

atcgggggact ctaattaagt ggaccaaagg attttgcac aatggcacgg ttggagaaga 300

tgttgtggct gaattgagta gggccatgga aaggcagg 338

<210> 1107

<211> 263

<212> nucleic acid

<213> Zea mays

<400> 1107

agcagaggga actgggtttc accttttctt tcccagtgca ccaaacatct atatcatcgg 60

ggactctaata taagtggacc aaaggatttt gcatcaatgg cacggttgga gaagatgttg 120

tggtgaatt gagtagggcc atggaaaagg agggctctga tatgaaagtt gcagctctgg 180

ttaatgatac tgtaggcaca ttggctgggtg ggagatatgc tgataatgat gttgttgctg 240

ctgtaatatt gggcactggc aca 263

<210> 1108

<211> 119

<212> nucleic acid

<213> Zea mays

<400> 1108

gatttccacc taccagatgg caagcagagg gaactgggtt tcaccttttc tttcccagtg 60

caccaaacat ctatatcatc ggggactcta attaagtgga ccaaaggctt ttgcatcaa 119

<210> 1109

<211> 277

<212> nucleic acid

<213> Zea mays

<220>

<221> unsure

<222> (236) . . . (237)

<223> unsure at all n locations

<400> 1109

caggaacact catcaagtgg acaaagggct tttccatcaa tggcacgggt ggtgaagatg 60

ttgtttctga gttgagcagg gccatggaga ggcagggact agatatgaaa gctacggcat 120

tagtcaatga tacagtgggc acattggctg gtgggagata tatggatacc gatgtagttg 180

cagctgtaat attgggcact ggtacaaatg cagcatatgt ggagcatgca aatgcnnttc 240

ctaaatggac tgggttactg cctaaatctg gaaagat 277

<210> 1110

<211> 242

<212> nucleic acid

<213> Zea mays

<400> 1110

tggtgatact gaaggtgaag atttccacct cccagaggggt aggcagagag aacttggttt 60

cacgttttcc ttcccagtga accaaacatc aatatcatca ggaacactca tcaagtggac 120

aaagggtttt tccatcaatg gcacggtttg tgaagatgtt gtttctgagt tgagcagggc 180

catggagagg cagggactag atatgaaagt tacggcattg gtcaatgata cagttggcac 240

at 242

<210> 1111

<211> 250

<212> nucleic acid

<213> Zea mays

<400> 1111

ggaagggaga aacgtgttgt caaacaacag tacgaggagg tttccattcc accgcatttg 60

atggtcggga cttccattga actatttgat ttcattgctg ctgcattggc taaatttggt 120

gatactgaag gtgatgattt ccacctcca gagggtaggc agagagaact tggtttcacg 180

ttttccttcc cgggtgaacca aacatcaata tcatcaggaa cactcatcat ttggacaaag 240

ggctttttcca 250

<210> 1112

<211> 330

<212> nucleic acid

<213> Zea mays

CC3E10 "C3E10"

<400> 1112
 cggaggaaca aacttttagag tgctgaaagt tgaagttggt gatgggtctg tggtcactcg 60
 ccgtaagggtc gagcttccca tccctgagga attgattaag ggtacaattg aggagttatt 120
 caactttggtt gccgtgaccc taaaggagtt cgtagaagca gaagatggta aagacgaaca 180
 aagggcactt ggtttcacat tttctttccc agtcagacaa acatcagtat cttcagggtc 240
 cttaattagg tggaccaaag ggtttttgat tgaagatgtg gttgggaaag atgtggctca 300
 atgcttaaat gaagctcttg ctaggagtgg 330

<210> 1113
 <211> 289
 <212> nucleic acid
 <213> Zea mays

<400> 1113
 gaacgaagag ggcgtcttct acgccttgga ccttggcgga acgaacttcc gcgtgctgcg 60
 cgtgcactcg ccgggaaaga caggcgtgtg gccaaagcag actccaagga ggtgtccatc 120
 cctcctcacc tcatgtcagg caacgcgtcg gagctgtttg gcttcatcgc ctcggcgcta 180
 gctaagtacg tcgccgcggc gggcgaaagg gacggcaggc agagagagct cgggttcacc 240
 ttctctttcc ccgtgcgcca gacgtcgatc gcgtcaggca cgctcatca 289

<210> 1114
 <211> 295
 <212> nucleic acid
 <213> Zea mays

<400> 1114
 cgagagtcca aggaggtgtc catccctcct cacctcatgt caggcaacgc atcggagctg 60
 tttggcttca tcgcctccgc gctagccaag tacgtcgccg cggcgggcca aggggacggc 120
 aggcagagag agctcggggt caccttctct tccccgtgc gccagacgtc gatcgctca 180
 ggcaogctca tcaagtggac caaggcgttt tcggtcgacg acgctgttgg tgaggatgtc 240
 gtcgccgagc tgcagacggc catggagaag caaggcgtcg acatgcgtgt ggcgg 295

<210> 1115
 <211> 277

<212> nucleic acid
 <213> Zea mays

<400> 1118

cccacgcgtc cgccattcc atgttgatga ccatgtctcc tgaatggggc agctcaccct 60
 ccatttttgg aatatgatca agaattagat aaggagagct taaatccagg agaacagatt 120
 tacgagaagt taacgtcagg aatgtattta ggtgaaattg taaggagggt gtccttaaa 180
 atatcattgc agtcgccat ttttggtgat attgaccaca ctaagcttca aaccatttc 240
 cttctgcgga ctccacatat ttcagca 267

<210> 1119
 <211> 296
 <212> nucleic acid
 <213> Zea mays

<400> 1119

tgtcaagtgg acaaaggcat tttccattaa tgatgctgta ggcgaagatg tggtaggctga 60
 actgcaaaca gccatggaga agcaaggctt ggacatgcat gtagctgcat tgattaatga 120
 tgctgttggg acgctggcgg gagcaaggta ctacgacaaa gatgttgctg ctggtgtaat 180
 atttggcact ggcacaaacg cagcatatgt tgagaaggca aatgctattc caaaatggga 240
 gggtagagctg cccattcag gagacatggt catcaacatg gaatggggta acttct 296

<210> 1120
 <211> 307
 <212> nucleic acid
 <213> Zea mays

<400> 1120

caaagatggt gtcgctgggtg taatatattg cactggcaca aacgcagcat atgttgagaa 60
 ggcaaagtgt attccaaaat gggaggggtga gctgccccat tcaggagaca tggatcatcaa 120
 catggaatgg ggtaacttct tctcatctca tctccccatc actgaatatg atcaagaatt 180
 agataaggag agcttaaata caggagaaca gatttacgag aagttaacgt caggaatgta 240
 tttagggtgaa attgtaagga gggtagctct taaaatatcg atgcagtcgg ccatttttgg 300
 tgatatt 307

<210> 1121
 <211> 197
 <212> nucleic acid
 <213> Zea mays

<400> 1121

agatgttgct gctggtgtaa tatttggcac tggcacaaac gcagcatatg ttgagaaggc 60
 aaatgctatt ccaaaatggg aggggtgagct gcccattca ggagacatgg tcatcaacat 120
 ggaatggggg aacttcttct catctcatct ccccatcact gaatatgatc aagaattaga 180
 taaggagagc ttaaatac 197

<210> 1122
 <211> 170
 <212> nucleic acid
 <213> Zea mays

<400> 1122

atttggagat gttgttccaa ctaagctgga gcagccattt atattgagga cgccagatat 60
 gtcagccatg catcatgact cttcgcatga cctcaaaact cttggatcta aactgaagga 120
 tatagttggg gtcgcagata cttccctgga agtaagatac attactcgtc 170

<210> 1123
 <211> 306
 <212> nucleic acid
 <213> Zea mays

<400> 1123

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 actggcacia atgcagctta tgtggaacat gcaaagtga ttcctaaatg gaccgggctg 120
 ctacctagat caggggaacat ggtaatcaac atggagtggg gaaacttcag atcagataaa 180
 cttccaaggt cggagtatga taaatcctta gacttcgaaa gtttgaaccc tggtgagcag 240
 atatatgaaa agatgatttc tggaatgtat cttggagaaa ttgtccggac gatcctgctg 300
 aaactg 306

<210> 1124
 <211> 308
 <212> nucleic acid
 <213> Zea mays

<400> 1124

ggcacattgg ctggtgggag atatgctgat aatgatgttg ttgctgctgt aatattgggc 60
actggcacia atgcagctta tgtggaacat gcaaattgtga ttcctaaatg gaccgggctg 120
ctacctagat cagggaacat ggtaatcaac atggagtggg gaaacttcag atcagataaa 180
cttccaaggt cggagtatga taaatcctta gacttcgaaa gtttgaaccc tggtagagcag 240
atatatgaaa agatgatttc tggaatgtat cttggagaaa ttgtccggag gatcctgctg 300
aaactggc 308

<210> 1125

<211> 315

<212> nucleic acid

<213> Zea mays

<400> 1125

cccacgcgtc cgattggctg gtgggagata tgctgataat gatgttggtg ctgctgtaat 60
attgggcact ggcacaaatg cagcttatgt ggaacatgca aatgtgattc ctaaattggac 120
cgggctgcta cctagatcag ggaacatggt aatcaacatg gagtggggaa acttcagatc 180
agataaaactt ccaaggctcg agtatgataa atccttagac ttcgaaagt tgaaccctgg 240
tgagcagata tatgacaaga tgatttctgg aatgtatctt ggagaaattg tccggacgat 300
cctgctgaaa ctggc 315

<210> 1126

<211> 442

<212> nucleic acid

<213> Zea mays

<400> 1126

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cacaaaaccg caatgatcag gtgaacaccc tgtgcaaata atgttatgta atagttgtac 120
cttttgtag tattgccgaa caaatttgac attgatgcag gggtttgaga aaatgggtctc 180
tggtgatttat cttggggaaa ttgcaaggct ggtgctgcat cgaatggctc tagaatcaga 240
tttttttggg gacgctgctg ataattctatg taccctcttc acattgagca caccactcct 300
cgctgcaatt cgcaaggacg attcaccaga tctgagcgaa gtcaggaaga tactgcaaga 360

acatctgaag gtcagctttc ctgaccttca tgaagtcaaa catgtgtttt cctccaacct 420
gtgaagggtc tgggtatttt gc 442

<210> 1127
<211> 436
<212> nucleic acid
<213> Zea mays

<400> 1127

ctgaaaactc gaaggctggt tgtcaaagtg tgcgacatcg tcacccggag agctgcccgg 60
ctagccgccg ctggtattgt cgggatactg aaaaagctcg gccgtgatgg gagcgggtgtt 120
gcttcaagcg ggagaacggg agggcagatg aggcggacgg tggttgccat cgaggggtggg 180
ctgtacgagg gctacccggt gttcagggag tacctagacg aagccctggt ggagatcttg 240
ggggaggagg tggcgcggaac ggtggcgctg agggtgacag tggatgggtc tggggccggc 300
gctgccctcc ttgccgccgt acattcgctg aatagacagc aaggttccat atagggagaa 360
gggaagatgg tgatacagcc ccctctgtgc aaatgtaaaa aggaacatta tttgatatct 420
atattcatat atatat 436

<210> 1128
<211> 443
<212> nucleic acid
<213> Zea mays

<400> 1128

caaacaacag tatgaggagg tttccattcc accacatttg atggtcggga cttccatggg 60
actatttgat ttcattgctg ctgcattggc taaatttgtc ggtactgaag gtgaagattt 120
ccaactccca gagggtagac agagagaact tggtttcaact ttttccttcc cgggtgaacca 180
aacatcaata tcatcaggaa cactcatcaa gtggacaaag ggctttttcca tcaatggcac 240
ggttggtgaa gatgttgatt ctgagttgag cagggccatg gagaggcagg ggctagatat 300
gaaagttacg gcattagtca atgatacagt cggcacattg gctgggtggga gatatatgga 360
taccgatgta gttgcagctg taatattggg cactggtaca aatgcagcat atgtggagca 420
tgcatatgca attcctaaat ggg 443

<210> 1129
 <211> 419
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (377), (392), (403)
 <223> unsure at all n locations

<400> 1129

ggcgaggatg acgagctcct ttctgaacta aaagataagt gggatgcaat ggagaacagg 60
 tcctctcttg ccttgatggt tgctggagca atcctcgctg tctggatata cttggttgta 120
 gtgagatctc tcgactctgt cccgttgctc ccaggcatat tggagctagt cgggctcagc 180
 tactctggat ggtttggtga ccgataacctg ctttttcagg aaaaccggaa agaattggcc 240
 ggtgttatcg atgatataaa gagaaggatt gttggcgatg atgaatagct gtttcctggt 300
 ttgtaattct atttatctcg cctgtttgg ttctgaggaa ttgaaaaata atccaatggt 360
 gaagtgagaa agcactntct agttattggt tntaattcat ggngtccaaa caggctcct 419

<210> 1130
 <211> 430
 <212> nucleic acid
 <213> Zea mays

<400> 1130

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 tcggaagggt gaacttccca tccctgagga attgaccaag ggtacaattg aggagctatt 120
 caactttggt gccatgactc taaaggaatt tgtagaaaca gaagatggga acgatgaaca 180
 acgagcgctt ggtttcacat tttctttccc agttagacaa acatcagtat cttcggggtc 240
 attgattagg tggaataaag ggtttttgat tgaagatgct gttgggaaag atgtggctca 300
 atgcttaaat gaagctcttg ctaggaatgg actaaatgtg cgagttactg cactggtgaa 360
 tgacaccgtg gggacattag ctctaggaca ttatcacgat gaggatacag tggctgctgt 420
 gatcattggt 430

<210> 1131
 <211> 356
 <212> nucleic acid

<400> 1131

ggacctcaaa	gcgaagtggg	acgccgttga	ggacaagccc	accgtcctct	tgtacggcgg	60
cggcgccgtc	gtcgccctct	ggctgacgtc	cgtggtcgtg	ggcgccatca	acgccgtgcc	120
gctgctcccc	aagatcctgg	agctcgttgg	gctcggctac	accggctggg	tcgtgtaccg	180
ctaccttctc	ttcaaggaaa	gcaggaaaaga	gttggccgcc	gacattgaga	ccttgaagaa	240
aaaaatagct	ggaacagaat	aaacgctcat	ggaaagtttt	agagcgtcct	ttcttctttg	300
gaaagagatc	tattcgatcg	gagaaccaat	gcaactactt	gagtactatt	attgcc	356

<210>	1132
<211>	440
<212>	nucleic acid
<213>	Zea mays

<400>	1132
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cgccgctccg	cgctccgccc	tccctccctcg	gcgcagcgtc	tgccagcttc	gcttccaagg	60
ggcaccgagg	ctctccctgc	tccgtgcgaa	ggccgcttcc	gaggacacat	cggcctccgg	120
cgacgagttg	atcgaggacc	tcaaagcgaa	gtgggacgcc	gttgaggaca	agcccaccgt	180
cctcttgtag	ggcggcggcg	ccgtcgtcgc	cctatggctg	acgtccgtgg	tcgtgggcgc	240
catcaacgcc	gtgccgctgc	tccccaagat	cctggagctc	gttgggctcg	gctacaccgg	300
ctggttcgtg	taccgctacc	ttctctttaa	ggaaagcagg	aaagagttgg	ccgccgacat	360
tgagaccttg	aagaaaaaaaa	tagctggaac	agaataaacg	ctcatggaaa	gttttagagc	420
gtccttttctt	ctttggaaaag					440

<210>	1133
<211>	421
<212>	nucleic acid
<213>	Zea mays

<400> 1133

aatccgtggc gctcctcggc ggcgcgcgcc ttcccgcgcg tccgcgetcc gccctectcc 60
ctcggcgcag cgtctgccag cttcgcttcc aagatgcacc gaggcctctcc ctgctccgtg 120
cgaaggccgc ttccgaggac acatcggcct ccggcgacga gttgatcgag gacctcaaag 180

cgaagtggga cgccgttgag gacaagccca ccgtcctctt gtacggcggc ggcgccgtcg 240
 tcgccctttg gctgacgtcc gtggctcgtgg gcgccatcaa cgccgtgccg ctgctcccca 300
 agatcctgga gctcgttggg ctccggtaca ccggctgggt cgtgtaccgc taccttctct 360
 tcaaggaaa caggaaagag ttggccgccg acattgagac cttgaagaaa aaaatagctg 420
 g 421

<210> 1134
 <211> 420
 <212> nucleic acid
 <213> Zea mays

<400> 1134

ggttctgtag cttccggtac gcttggttaag tggacaaaagg cattttccat taatgatgct 60
 gtaggcgaag atgtggtggc tgaactgcaa acagccatgg agaagcaagg tctggacatg 120
 catgtagctg cattgattaa tgatgctgtt gggacgctgg cgggagcaag gtactacgac 180
 aaagatgttg tcgctgggtg aatatttggc actggcacia acgcagcata tgttgagaag 240
 gcaaagtcta ttgcaaaatg ggaggggtgag ctgccccatt caggagacat ggtcatcaac 300
 atggaatggg gtaacttctt ctcatctcat cttcccatca ctgaatatga tcaagaatta 360
 gataaggaga gcttaaattc aggagaacag atttacgaga agttaacgtc aggaatgtat 420

<210> 1135
 <211> 420
 <212> nucleic acid
 <213> Zea mays

<400> 1135

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 ggcacattgg ctggtgggag atatgctgat aatgatgttg ttgctgctgt aatattgggc 120
 actggcacia atgcagctta tgtggaacat gcaaattcga ttcctaaatg gaccgggctg 180
 ctacctagat cagggaacat ggtaatcaac atggagtggg gaaacttcag atcagataaa 240
 cttccaaggt cggagtatga taaatcctta gacttcgaaa gtttgaaccc tggtagcag 300
 atatatgaaa agatgatttc tggaaatgtat cttggagaaa ttgtccggag gatcctgctg 360
 aaactggctc atgatgcttc attgtttggg gatgttgttc ctccgaaaact ggaacagcta 420

<210> 1136
 <211> 107
 <212> nucleic acid
 <213> Zea mays

<400> 1136

cggacactgg gcgagacgcg tgggtgaagt ttcggcgaga tgttgataga cttcgtgccc 60
 accgtggcgg ggggtctcgct agcgggaagtg ccggccttac tcaaggc 107

<210> 1137
 <211> 230
 <212> nucleic acid
 <213> Zea mays

<400> 1137

gcgcccacct cctctgctct ctctctctccc ccacctctgc gtccgtgcgt tgtgtttgtt 60
 taggcggcaa ccgcgatgcg caatggcggc cgggcgagag ctggtggtga gtttcggcga 120
 gatgttgata gacttcgtgc ccaccgtggc ggggggtctcg ctggcggagg cgccgggctt 180
 cctcaaggcg ccggtggcgg cgcccgttaa cgtcgccatc gtggtctcgc 230

<210> 1138
 <211> 240
 <212> nucleic acid
 <213> Zea mays

<400> 1138

cgacgtcgtc ataactggcg cctctatgag tcggcggact gctgccgctg cggcgtccaa 60
 caacctggtg gtgtcgttcg gcgagatgct gatcgacttc gtccccgacg tggccgtgct 120
 gtcgttggcc gagtcgggcg gcttcgtcaa ggcacccggc ggcgcgcccc ccaacgtcgc 180
 ctgcgccatc gccaaagctcg gcggatcctc cgccttcgta ggcaagttcg gcgacgacga 240

<210> 1139
 <211> 300
 <212> nucleic acid
 <213> Zea mays

<400> 1139

cggaccgtgg cgtcaacgtc gccaaaggacg actccatctt ccacaacgag gagggagccg 60

gcggcgctcgt cttcgactcc ggcgcgcgca ccggctcgcc ttcgtcaccc tgcgcgccga 120
 cggggagcgc gagttcatgt tctaccgcaa cccagcgcgt gacatgctcg tcaccgccga 180
 cgagctcaac gtcgagctca tcaagagggc tgcggtcttc cagtacggat cagtaagctt 240
 gattgctgag ccttgccgga cagcacatct ccgtgccatg gagattgcca aacaggcagg 300
 tgcactgctc 310

<210> 1143
 <211> 226
 <212> nucleic acid
 <213> Zea mays

<400> 1143

cgacgagttc ggccgcatgc tcgtcgctat cctccgcgac aacggcgctc acgacggcgg 60
 cgtcgtcttc gactccggcg cgcgcaccgc gtcgccttc gtcaccctgc gcgccgacgg 120
 ggagcgcgag ttcatgttct accgcaatcc cagcgtgac atgctcctca ccgccgacga 180
 gctcaacgtc gagctcatca agagggctgc ggtcttccac tacgga 226

<210> 1144
 <211> 260
 <212> nucleic acid
 <213> Zea mays

<400> 1144

atccatcctc gctacaagac gagaagaagc ttgtagagtc tattaaattc gctaattcgt 60
 gtggagcaat caccgccacg aagaaggggtg cgatcccgtc tttgccact gaaactgagg 120
 tcttgcagct aatagagaag gcatagatag atcactgtaa ttgctttggt tttcactagc 180
 ttccacttct gcaaattgca aaatgtattg tattctgac tggaacagaa gaagtgggtg 240
 ctccatctta cctgccattt 260

<210> 1145
 <211> 328
 <212> nucleic acid
 <213> Zea mays

<400> 1145

cccacgcgtc cgcaataagc ttgattgctg agccttgccg gacagcacat ctccgtgcca 60

tggagattgc caaagaggca ggtgcactgc tctcttatga cccaaacctg agggaggcac 120
 tatggccatc ccgtgaggag gcccgacccc agatcttgag catctgggac caggcagaca 180
 ttgtcaaggt cagcgaagtc gagctcgagt tcttgacagg catcgactcg gtggaggacg 240
 atgttgtcat gaagctgtgg cggcctacca tgaagctgct cctagtgact cttggagatc 300
 aagggtgcaa gtactatgcc agggattt 328

<210> 1146
 <211> 314
 <212> nucleic acid
 <213> Zea mays

<400> 1146

cttgattgct gagccttgcc ggacagcaca tctccgtgcc atggaaattg ccaaagaggc 60
 tgggtgcactg ctctcttacg acccaaacct gagggaggca ctttggccat ccctgagga 120
 ggcccgaccc cagatcttga gcatctggga ccaggcagat atcgtcaagg tcagcgaagt 180
 cgagcttgag ttcttgacag gcatcaactc agtggaggac gatgttgtca tgaagctgtg 240
 gcgacctacc atgaagctgc tcctgggtgac tcttggagat caaggatgca agtactatac 300
 cagggatttc catg 314

<210> 1147
 <211> 286
 <212> nucleic acid
 <213> Zea mays

<400> 1147

ccggacagca catctccgtg ccatggagat tgccaaagag gcagggtgcac tgctctctta 60
 tgacccaaac ctgagggagg cactatggcc atcccgtgaa gagggccgca ccagatctt 120
 gagcatctgg gaccaggcag acattgtcaa ggtcagcgaa gtcgagctcg agttcttgac 180
 aggcatcgac tcggtggagg acgatgttgt catgaagctg tggcggccta ccatgaagct 240
 gtcctagtg actcttggag atcaaggggtg caagtactat gccagg 286

<210> 1148
 <211> 272
 <212> nucleic acid
 <213> Zea mays

<400> 1148
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 gaggacggca ctatggccat cccgtgagga ggcccgacc cagatcttga gcatctggga 120
 ccaggcagac attgtcaagg tcagcgaagt cgagctcgag ttcttgacag gcatcgactc 180
 ggtggaggac gatgttgtca tgaagctgtg gcggcctacc atgaagctgc tcctagtgc 240
 tcttgagat caaggggtgca agtactatgc ca 272

<210> 1149
 <211> 286
 <212> nucleic acid
 <213> Zea mays

<400> 1149
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 ttgctgagcc ttgccggaca gcacatctcc gtgccatgga gattgccaaa gaggcagggtg 120
 cactgctctc ttatgaccca aacctgaggg aggcactatg gccatcccgaggaggagggccc 180
 gcacccagat cttgagcatc tgggaccagg cagacattgt caaggtcagc gaagtcgagc 240
 tcgagttctt gacagggcatc gactcgggtg aggacgatgt tgtcat 286

<210> 1150
 <211> 263
 <212> nucleic acid
 <213> Zea mays

<400> 1150
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 cgtgccatgg aaattgccaa agaggctggt gcaactgctc cttacgaccc aaacctgagg 120
 gaggcacttt ggccatcccg gagggagggccc gcacccagat cttgagcatc tgggaccagg 180
 cagatatcgt caaggtcagc gaagtcgagc ttgagttctt gacagggcatc aactcagtgg 240
 aggacgatgt tgtcatgaag ctg 263

<210> 1151
 <211> 297
 <212> nucleic acid
 <213> Zea mays

<400> 1151
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 ctcttgagga tcaaggggtgc aagtactatg ccagggattt ccatggcgct gtgccttcct 120
 tcaaagtaca acaagttgat acaactggcg caggtgacgc gttcgttggt gctctgctcc 180
 aaaggatcgt taaagatcca tcctcgctac aagatgagaa gaagcttggt gagtcgatta 240
 aattcgctaa cgcgtgcgga gcgatcacca ccacgaagaa gggggcgatc tcgtcgc 297

<210> 1152
 <211> 293
 <212> nucleic acid
 <213> Zea mays

<400> 1152
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 tgctcctagc gactcttgta gatcaagggg gcaagtacta tgccagggat ttccatggcg 120
 ctgtgccttc cttcaaagta caacaagttg atacaactgg cgcagggtgac gcgttcgttg 180
 gtgctctgct ccaaaggatc gttaaagatc catcctcgct acaagatgag aagaagcttg 240
 tggagtcgat taaattcgct aacgcgtgcg gagcgatcac caccacgaag aag 293

<210> 1153
 <211> 286
 <212> nucleic acid
 <213> Zea mays

<400> 1153
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 ctagtgactc ttggagatca aggggtgcaag tactatgcc a gggatttcca tggcgctgtg 120
 ccttccttca aagtacaaca agttgatcaa ctggcgcagg tgacgcgttc gttggtgctc 180
 tgctccaaag gatcggttaa gatccatcct cgctacaaga tgagaagaag cttgtggagt 240
 cgattaaatt cgctaacgcg tgcggagcga tcaccaccac gaagaa 286

<210> 1154
 <211> 276
 <212> nucleic acid
 <213> Zea mays

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<220>
<221>      unsure
<222>      (109)
<223>
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<210>	1156
<211>	230
<212>	nucleic acid
<213>	Zea mays

<210>	1157
<211>	294

<212> nucleic acid
<213> Zea mays

<400> 1157

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gacgagttcg ggcacatgct ggtgaacatc ctgaagcaga acaacgtgaa ctcggagggg 120
tgctgttcg acaagcacgc gcggacggcg ctggccttcg tgacgctcaa gcacgacggg 180
gagcgcgagt tcatgttcta caggaacccg agcgcggaaca tgctgctgac ggaggcggat 240
ctggacctgg gcctgggtgcg gcgcgccagg gtgttccact acgggtccat ctcg 294

<210> 1158
<211> 299
<212> nucleic acid
<213> Zea mays

<400> 1158

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agcgcgagtt catgttctac aggaacccga gcgcggacat gctgctgacg gaggcggagc 120
tggaacctgg cctgggtgcg gcgcgccagg tgttccacta cggtccatc tcgctcatct 180
ccgagccgtg ccgctcggcg cacatggccg ccatgcgcgc agccaaggcg gcgggcgtgc 240
tctgtctcta cgaccccaac gtgcgcctcg cgctctggcc gtcagccgac agcgcacgc 299

<210> 1159
<211> 255
<212> nucleic acid
<213> Zea mays

<400> 1159

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accaccggcg ccggcgacgc ctctgctggc tccttcctcg tcaacgtcgc caaggacgac 120
tccatcttcc acaacgagga gaagctccgc gaggtcttca agttctccaa cgcctgcggc 180
gccatctgca ccaccaagaa gggcgccatc ccggcgctgc ccacggctgc caccgcccag 240
gacctcatcg ccaag 255

<210> 1160
<211> 326

THE **WORLD'S** **GREATEST** **TRAVEL** **AGENCY**

[illegible][illegible]

THE **WORLD'S** **GREATEST** **TRAVEL** **AGENCY**

1. The first step is to identify the problem. This involves understanding the symptoms and the context in which they are occurring.

<400> 1163

<400>	1164
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<220>
<221>      unsure
<222>      (11), (17), (215), (221), (277), (290)
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<223> unsure at all n locations

<400> 1165

gaacgtgctg nccctgnggt ttgacgggct caagctgctc gtcgtcaccg acggggacaa 60
aggatgcagg tacttcacca aggacttcaa gggcagcgtg cccggcttca aggtcgacac 120
cgtcgacacc accggcgccg gcgacgcctt cgtcggctcc ctccctgtca acgtcgccaa 180
ggacgactcc atcttccaca acgaggagaa gctcnggatg ntctcaagtt ctccaacgcc 240
tgcgggcgcca tctgcaccac caagaagggc gccatcncgg cgctgcccان g 291

<210> 1166

<211> 371

<212> nucleic acid

<213> Zea mays

<400> 1166

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ctcatctccg agcctgtccg ctgggcgcac atggccgcca tgcgcgcacc aaggccgcgg 120
gcgtgctctg ctccacgac cccaacgtgc gcctcccgt ctggccgtcg cccgacgccg 180
cacgcgaggg catcctcagc atctggaagg aggccgactt catcaaggtc agcgacgacg 240
aggtggcctt cctcacgcgc ggggacgcca acgacgagaa gaacgtgctg tccctgtggt 300
ttgacgggct caagctgctc gtcgtcaccg acggggacaa gggatgcagg tagcttcacc 360
aagacttcaa g 371

<210> 1167

<211> 310

<212> nucleic acid

<213> Zea mays

<220>

<221> unsure

<222> (281)

<223>

<400> 1167

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ggcggcgcgc ccgccaacgt cgctgcgcc atcgccaagc tcggcggatc ctccgccttc 120
gtaggcaagt tcggcgacga cgagttcggg cacatgctgg tgaacatcct gaagcagaac 180

gtttgacggg ctcaagctgc tcgtcgtcac cgacggggac aagggatgca ggtacttcac 120
 caaggacttc aagggcagcg tgcccggctt caaggctgac accgtcgaca ccaccggcgc 180
 cggcgacgcc ttctgtcggt cctcctcgt caacgtcgcc aaggacgact ccatcttcca 240
 caacgaggag aagctccgcg aggccc 266

<210> 1171
 <211> 272
 <212> nucleic acid
 <213> Zea mays

<400> 1171
 acttcaccaa ggacttcaag ggcagcgtgc ccggcttcaa ggtcgacacc gtcgacacca 60
 ccggcgccgg cgacgccttc gtcggctccc tctcgtcaa cgtcgccaag gacgactcca 120
 tcttccacaa cgaggagaag ctccgcgagg ctctcaagtt ctccaacgcc tgcagcgcca 180
 tctgcaccac caagaagggc gccatcccgg cgtgcccac ggtcgctacc gccaggacc 240
 tcatcgccaa ggccaactag atggccgcac gc 272

<210> 1172
 <211> 275
 <212> nucleic acid
 <213> Zea mays

<400> 1172
 aaggacttca agggcagcgt gcccggcttc aaggctgaca ccgtcgacac caccggcgcc 60
 ggcgacgct tcgtcggtc cctcctcgtc aacgtcgcca aggacgactc catcttccac 120
 aacgaggaga agtccgcga ggccctcaag ttctccaacg cctgcgggcc atctgcacca 180
 ccaagaaggg cgccatcccg gcgctgccc cggctcgccac cgcccaggac ctcacgcca 240
 aggccaacta gatggccgca cgccccgcg ttcca 275

<210> 1173
 <211> 300
 <212> nucleic acid
 <213> Zea mays

<400> 1173
 gaagaacgtg ctgtccctgt ggtttgacgg gctcaagctg ctctcgtca ccgacgggga 60

caaggggatgc aggtacttca ccaaggactt caagggcagc gtgcccggct tcaaggtcga 120
caccgtagac accaccggcg ccggcgacgc cttagctggc tccctcctcg tcaacgtcgc 180
caaggacgac tccatcttcc acaacgagga gaagctccgc gaggccctca agttctccaa 240
cgctgcggtg gccatctgca ccaccaagaa gggcgccatc ccggcgctgc ccacggtcgc 300

<210> 1174
<211> 277
<212> nucleic acid
<213> Zea mays

<400> 1174

cgctcaagca cgacggggag cgcgagttca tgttctacag gaacccgagc gcggacatgc 60
tgctgacgga ggcggagctg gacctgggccc tggcgcggcg cgccagggtg ttccactacg 120
gtccatctc gctcatctcc gagccgtgcc gtcggcgca catggccgcc atgcgcgag 180
caaggccgcg ggcgtgctct gtcctacga cccaacgtg cgctcccg cctggccgctc 240
gcccgaagcc gcacgcgagg gcatcctcag catctgg 277

<210> 1175
<211> 279
<212> nucleic acid
<213> Zea mays

<400> 1175

gagcagcgtg cccggcttca aggtcgacac cgtcgacacc accggcgccg gcgacgcctt 60
cgtcggctcc ctctcgtca acgtcgcaa ggacgactcc atcttccaca acgaggagaa 120
gctccgagag gctctcaagt tctccaacgc ctgcgaggcc atctgcacca ccaagaaggg 180
cgacacaccg gcgtgceca cggtcgccac cgcccaggac ctcacgcga aggccaacta 240
gatggccgca cgccccgcg ttccaccacg tcaactgtcc 279

<210> 1176
<211> 292
<212> nucleic acid
<213> Zea mays

<400> 1176

gcgagggcat cctcagcatc tggaaggagg ccgacttcat caaggtcagc tacgacgagg 60

tggccttcc caccgcggg gacgccaacg acgagaagaa cgtgctgtcc ctgtggtttg 120
acggggtcaa gctgctcgtc gtcaccgacg gggacaaggg atgcaggtac ttcaccaagg 180
acttcaaggg cagcgtgccc ggcttcaagg tcgacaccgt cgacaccacc ggcgccggcg 240
acgccttcgt cggctccctc ctgctcaacg tcggcaagga cgactccatc tt 292

<210> 1177
<211> 288
<212> nucleic acid
<213> Zea mays

<400> 1177

aaggacttca agggcagcgt gcccggcttc aaggtcgaca ccgtcgacac caccggcgcc 60
ggcgacgcct tcgtcggttc cctcctcgtc aacgtcgcca aggacgactc catcttccac 120
aacgaggaga agctccgcca ggccctcaag ttctccaacg cctgcggggc atctgcacca 180
ccaagaaggg cgccatcccg gcgctgcca cggtcgccac cgcccaggac ctcatcgcca 240
aggccaacta gatggcgcca cgccccgccc ttccaccacg tcaactgtc 288

<210> 1178
<211> 272
<212> nucleic acid
<213> Zea mays

<400> 1178

cccacgcgtc cgacgagttc gggcacatgc tggatgaacat cctgaagcag aacaacgtga 60
acgcggaggg gtgcctgttc gacaagcacg cgcggacggc gctggccttc gtgacgctca 120
agcacgacgg ggagcgcgag ttcatgttct acaggaaccc gagcgcggac atgctgctga 180
cggaggcgga gctggacctg ggcttgggtc ggcgcgccag ggtgttccac tacggtcca 240
tctcgtcat ctccgagccg tgccgctcgg cg 272

<210> 1179
<211> 225
<212> nucleic acid
<213> Zea mays

<400> 1179

gtgaactcgg aggggtgcct gtccgacaag caccgcggga cggcgtggc ctccgtgacg 60

ctcaagcacg acggggagcg cgagttcatg ttctacagga acccgagcgc ggacatgctg 120
 ctgacgaagg cgaacctgaa cttgggcttg ttccgcgcgc caaggtgttc cactacggct 180
 ccatctcggg catcttcgag ccgtgccgct cggcgaaaat ggccg 225

<210> 1180
 <211> 243
 <212> nucleic acid
 <213> Zea mays

<400> 1180

gccgacttca tcaaggtcag cgacgacgag gtggccttcc tcacgcgcgg ggacgccaac 60
 gacgagaaga acgtgctgtc cctgtgggtt gacgggctca agctgctcgt cgtcaccgac 120
 ggggacaagg gatgcaggta cttcaccaag gacttcaagg gcagcgtgcc cggcttcaag 180
 gtcgacaccg tcgacaccac gggcgccggc gacgccttcg tcggctccct cctcgtcaag 240
 gtc 243

<210> 1181
 <211> 286
 <212> nucleic acid
 <213> Zea mays

<400> 1181

gtgctctgct cctacgaccg caacgtgcgc ctcccgtctt ggccgctgcc cgacgccgta 60
 cgcgagggca tcctcagcat ctggaaggag gccgacttca tcaaggtcag cgacgacgag 120
 gtggccttcc tcacgcgcgg cgacgccaac gacgagaaga acgtgctgtc cctgtgggtt 180
 gacgggctca agctgctcgt cgtcaccgac ggggacaagg gatgcaggta cttcaccaag 240
 gacttcaagg gcagcgtggc ccgcttcaag gtcgacaccg tcgaca 286

<210> 1182
 <211> 265
 <212> nucleic acid
 <213> Zea mays

<400> 1182

cgctcatctc cgagccgtgc cgctcggcgc acatggccgc catgcgcgca ccaaggcggc 60
 gggcgtgctc tgctcctacg accccaacgt gcgcctcccg ctctggccgt cgcccgacgc 120

cgacgcgag ggcacccca gcacccgga ggagccgac tcatcaagg tcagcgacga 180
 cgaggtggcc ttccacacgc gcggggacgc caacgacgag aagaacgtgc tgtccctgtg 240
 gtttgacggg ctcaagctgc tcgtc 265

<210> 1183
 <211> 276
 <212> nucleic acid
 <213> Zea mays

<400> 1183

cccaaggact tcaagggcag cgtgcccggc ttcaaggctg acaccgtcga caccaccggc 60
 gccggcgacg ccttcgtcgg ctcctcctc gtcaacgtcg ccaaggacga ctccatcttc 120
 cacaacgagg agaagctccg cgaggccctc aagttctcca acgcctgcgg gccatctgca 180
 ccaccaagaa gggcgccatc ccggcgctgc ccacggctgc caccgccag gacctcatcg 240
 ccaaggccaa ctagatggcc gcacgccccg ccgttc 276

<210> 1184
 <211> 336
 <212> nucleic acid
 <213> Zea mays

<400> 1184

gaacgtgctg tccctgtggt ttgacgggt caagctgctc gtcgtcacgc ggggacaagg 60
 gatgcaggta cttaccaag gacttcaagg gcagcgtgcc cggcttcaag gtcgacaccg 120
 tcgacaccac cggcgccggc gacgccttcg tcggctcccc tctcgtcaa cgtcgccaag 180
 gacgactcca tcttcacaa cgaggagaag ctccgcgagg ctctcaagtt ctccaacgcc 240
 tgcgtggcca tctgcaccac caagaagggc gccatcccgg cgtgcccac ggtcgcttac 300
 gccagggacc tcacgcca ggccaactag atggcc 336

<210> 1185
 <211> 329
 <212> nucleic acid
 <213> Zea mays

<400> 1185

gcgcggacat gctgctgacg gagggggact ggacctgggc ctggtgcggc gcgccacggt 60

gttccactac gggtccatct cgtcatctc cgagccgtgc cgtcggcgc acatggccgc 120
catgcgcga ccaaggccgc gggcgtgctc tgctcctacg acttcatcaa ggtcagcgac 180
gacgaggtgg ccttcctcac gcgcggggac gccaacgacg agaagaacgt gctgtccctg 240
tggtttgacg gctcaagctg ctgctcgtca ccgacgggga caagggatgc aggtacttca 300
ccaaggactt caagggcagc gtgcccggc 329

<210> 1186
<211> 237
<212> nucleic acid
<213> Zea mays

<400> 1186
gccccatgcy cgcaccaagg ccgcgggcyt gctctgctcc tacgacccca acgtgcgcct 60
cccgtcttgg ccgtcgcccg acgccgcacg cgagggcatc ctcagcatct ggaatgaggc 120
cgacttcata aaggtcagcg acgacgaggt ggccttcctc acgcgcgggg acgccaacga 180
cgagaagaac gtgctgtccc tgtggtttga cgggctcaag ctgctcgtcg tcaccga 237

<210> 1187
<211> 196
<212> nucleic acid
<213> Zea mays

<400> 1187
cccacgcgtc cgccacgcg tccgcgactt catcaaggtc agcgacgacg aggtggcctt 60
cctcacgcgc ggggacgcca acgacgagaa gaacgtgctg tccctgtggt ttgacgggct 120
caagctgctc gtcgtcaccg acggggacaa gggatgcagg tacttcacca aggacttcaa 180
gggcagcgtg cccggc 196

<210> 1188
<211> 283
<212> nucleic acid
<213> Zea mays

<400> 1188
cgtcaacgtc gccaaaggacg actccatctt ccacaacgag gagaagctcc gcgaggctct 60
caagttctcc aacgcctgcg gcgccatctg caccaccaag aaggcgcca tcccgcgct 120

gcccacggtc gccaccgccc aggacctcat cgccaaggcc aactagatgg ccgcacgccc 180
 cgccgttcca ccacgtcaact gtcccccgcc gccccgcccc tcgtcgtcga cgtcctcggt 240
 ttccggttcat taggtagatc gagtcttagc gtccgtctct gcg 283

<210> 1189
 <211> 171
 <212> nucleic acid
 <213> Zea mays

<400> 1189

gaacaacgta tacgcggagg ggtgcctggt cgacaagcac gcgcggacgg gctggccttc 60
 gtgacgtca agcacgacgg ggagcgcgag ttcatgttct acaggaaccc gagcgcggac 120
 atgctgctga cggaggcgga ctggtacctg ggcttgggtgc ggcgcgccag g 171

<210> 1190
 <211> 267
 <212> nucleic acid
 <213> Zea mays

<400> 1190

ggacgactcc atcttccaca acgaggagaa gctccgcgag gccctcaagt tctccaacgc 60
 ctgcggcgcc atctgcacca ccaagaaggg cgccatcccg gcgctgccca cggtcgccac 120
 cgcccaggac ctcatcgcca aggccaacta gatggcgcca tgcccccgccg ttccaccacg 180
 tcaactgtccc ccgcgcgccc gccctcgtc gtgcacgtcc tcggtttcgg ttcattaggt 240
 agatcgagtc ttagcgcccg tctctgc 267

<210> 1191
 <211> 201
 <212> nucleic acid
 <213> Zea mays

<400> 1191

ccgacttcat caaggtcagc gacgacgagg tggccttctt cagcgcgggg gacgccaacg 60
 acgagaagaa cgtgctgtcc ctgtgggttg aagggtcaa gctgctcgtc gtcaccgacg 120
 gggacaaggg atgcaggtac ttcaccaagg acttcaaggg cagcgtgccc ggcttcaagg 180
 tcgacaccgt cgacaccacc g 201

<210> 1192
 <211> 272
 <212> nucleic acid
 <213> Zea mays

<400> 1192

caacggcagc gtgcccggct tcaaggctga caccgtcgac accaccggcg ccggcgacgc 60
 cttcgtcggc tccctcctcg tcaacgtcgc caaggacgac tccatcttcc acaacgagga 120
 gaagctccgc gagggccctca agttctccaa cgctgcggc gccatctgca ccaccaggaa 180
 gggcgccatc ccggcgctgc tgcaggctgc caccgcccag gacctcatcg ccaaggccaa 240
 ctagatggcc gcacgcaccg ccgttccacc ac 272

<210> 1193
 <211> 307
 <212> nucleic acid
 <213> Zea mays

<400> 1193

ctgcggaggc tctcaagttc tccaacgcct gcaggccatc tgcaccacca agaagggcgc 60
 catcccggcg ctgcccacgg tcgccaccgc ccaggacctc atcgccaagg ccaactagat 120
 ggccgcacgc ccgcggttcc accacgtcac tgtccccctc gtcgtcgacg tctcggttt 180
 cggttcatta ggtagatcga gtcttagcgt ccgtctctgc gcctctacgc tgagacgggt 240
 tgtttggtt aattaagtta gctttcgtgg agatttcgcc ccggggcatc aaataaaatg 300
 ttggcat 307

<210> 1194
 <211> 306
 <212> nucleic acid
 <213> Zea mays

<400> 1194

ggcggactgc tgccgcggcg gcgtccaaca acctgggtgt gtcgttcggc gagatgctga 60
 tcgacttcgt ccccgacgtg gccgggctgt cgctggccga gtcgggctgc ttcgtcaagg 120
 caccggcgcg cgcgcccgc aacgtcgct gcgccatcgc caagctcggc ggatcctccg 180
 ccttcgtagg caagttctgc gacgacgagt tcgggcacat gctggtgaac atcctgaagc 240

agaacaacgt gaacgcggag gggcgctgt tcgacaagca cgcgtggacg gcgctggcct 300
tcgtga 306

<210> 1195
<211> 314
<212> nucleic acid
<213> Zea mays

<400> 1195

cgcctcgctt tcccttcccc accagcccggt ctctctcttc tctctgactc tctctctcgt 60
agccgcgtcc acctcgacgc agcaagcaag cgcgaccaa tggcgctctt aggagacggc 120
ggagctgctg ccgcggcggc gtccaacaac ctgggtggtgt cgttcggcga gatgctgac 180
gacttcgtcc ccgacgtggc cgggctgtcg ctggccgagt cgggcggctt cgtcaaggca 240
cccggcgggc cgcgcgcaa cgtcgctgc gccatcgtca agctcggcgg atcctccgcc 300
ttcgtaggca agtt 314

<210> 1196
<211> 308
<212> nucleic acid
<213> Zea mays

<400> 1196

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cgtagccgcy tccatctcgc agcagcaagc aagcgcgacc aaatggcgcc tctaggagac 120
ggcggactgc tgccgcggcg gcgtccaaca acctggtggt gtcgttcggc gagatgctga 180
tcgacttcgt ccccgacgtg gccgggctgt cgtcggcga gtcgggcggc ttcgtcaagg 240
caccggcggy cgcgcgcgc aacgtcgctt gcgccatcgc caagctcggc ggaatctccg 300
ccttcgta 308

<210> 1197
<211> 279
<212> nucleic acid
<213> Zea mays

<400> 1197

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caagcgcgac caaatggcgc ctctaggaga cggcggagct gctgccgcgg cggcgtccaa 120
 caacctggtg gtgtcgttcg gcgagatgct gatcgacttc gtccccgacg tggccgggct 180
 gtcgctggcc gagtcggggc gcttcgtcaa ggcacccggc ggcgcgccc ccaacgtcgc 240
 ctgcgccatc gccaaagctc gcggatcctc cgccttcgt 279

<210> 1198
 <211> 331
 <212> nucleic acid
 <213> Zea mays

<400> 1198

cccacgcgtc cgcgcctcgc cttcccttcc ccaccagccc ccgtctctct ctctctctct 60
 ctgtctctct ctcgtagccg cgtccatctc gcagcagcaa gcaagcgcga ccaaatggcg 120
 cctctaggag acggcggagc tgctgccgcg gcggcgtcca acaacctggt ggtgtcgttc 180
 ggcgagatgc tgatcgactt cgtccccgac gtggccgggc tgctcgtggc cgagtcgggc 240
 ggcttcgtca aggcacccgg cggcgcgccc gccaaacgtc cctgcgccat cgtcaagctc 300
 ggcggatcct ccgccttcgt aggcaagttc g 331

<210> 1199
 <211> 299
 <212> nucleic acid
 <213> Zea mays

<400> 1199

gcctcgcctt cccttcccc ccagcccccg tctctctctc tctctctctg tctctctctc 60
 gtagccgcgt ccatctcgca gcagcaagca agcgcgacca aatggcgct ctaggagacg 120
 gcggagtgtt gccgcggcgg cgtccaacaa cctggtggtg tcgttcggcg agatgctgat 180
 cgacttcgtc cccgacgtgg ccgggctgtc gctggccgag tcgggcggct tcgtcaaggc 240
 acccggcggc gcgctcgcca acgtcgctc cgcctatgcc aagctcggcg gatcctccg 299

<210> 1200
 <211> 276
 <212> nucleic acid
 <213> Zea mays

<400> 1200

cgtctctctc	tctcttctct	ctgactctct	ctctcgtagc	cgcgtccacc	tgcagcagc	60
aagcaagcgc	gaccaaattg	cgctcttagg	agacggcgga	gctgctgccg	ggcgggcgtc	120
caacaacctg	gtgggtgtct	tgggcgagat	gctgatcgac	ttcgtccccg	acgtggccgg	180
gctgtcgctg	gccgagtcgg	gcggtcttct	caaggccccc	ggcgggcgcg	acgccaacgt	240
cgctgcgcgc	atcgccaagc	tggcgggctc	ctccgc			276

<210>	1201
<211>	278
<212>	nucleic acid
<213>	Zea mays

<400> 1201

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ctctctctct	ctgtctctct	ctcgtagccg	cgtccatctc	gcagcagcaa	gcaagcgcga	120
ccaaatggcg	cctctaggag	acggcggact	gctgccgcgg	cggcgtccaa	caacctggtg	180
gtgtcgttcg	gcgagatgct	gatcgacttc	gtccccgacg	tggccgggct	gtcgtcggcc	240
gaqtcgggcg	gcttcgtcaa	ggcaccgcgc	ggcgcgcc			278

<210>	1202
<211>	190
<212>	nucleic acid
<213>	Zea mays

```
<220>
<221>      unsure
<222>      (67)
<223>
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<400> 1202

gtagccgcgt	ccacctcgca	gcagcaagca	agcgcgacca	aatgggcgcc	tctaggagac	60
ggcggantgc	tgccgcggcg	gcggtccaaca	acctggtggt	gtcgttcggc	gagatgctga	120
tcgacttcgt	ccccgacgtg	gccgggctgt	cgctggccga	gtcgggcggc	ttcgtcaagg	180
cacccggcgg						190

<210>	1203
<211>	275
<212>	nucleic acid

<213> Zea mays

<400> 1203

agcacaatcg cctcgcccttc ccttccccac cagcccccggt ctctctctctt cttctctcttg 60
actctctcttc tcgtagccgc gtccacctcg cagcagcatg caagcgcgac caaatggcgc 120
ctctaggaga cggcggagct gctgccgcgg cggcgtccaa caacctggtg gtgtcgttcg 180
gcgatatgct gatcgacttc gtccccgacg tggccggggt gtcgctggcc gagatcggcg 240
gcttcgtcaa ggcccccggt ggccgcgctcg ccaac 275

<210> 1204

<211> 316

<212> nucleic acid

<213> Zea mays

<400> 1204

gtctctctctt tctctctgac tctctctctc gtagccgcgt ccacctcgca gcagcaagca 60
agcgcgacca gatgggcgct ctaggagacg gcggagtgtt gccgcggcgg cgtccaacaa 120
cctggtggtg tcgttcggcg agatgctgat cgacttcgtc cccgacgtgg cggggtgtc 180
gctggccgag tcgggcgggt tcgtcaaggc attcggcggc gcgcccgcga acgtcgcttg 240
cgacatcgcc aagctcggcg gatcctccgc ctctgtaggc aagttcggcg acgacgagtt 300
cgggcacatg ctggtg 316

<210> 1205

<211> 247

<212> nucleic acid

<213> Zea mays

<400> 1205

ctctctctctt cgtagccgcg tccacctcgc agcagcaagc aagcgcgact aaatggcgtc 60
tctaggagac ggtggactgc tgctgcggcg gcgtccaaca atctggtggt gtcgttcggc 120
gagatgctga tcgacttcgt ccccgacgtg gctgggctgt cgctggccga ttcgggcggc 180
ttcgtcaagg caccctgcgg cgcgctcgct aatgtcgctt tcgccatcgc caagctcggc 240
ggatcct 247

<210> 1206

ccgcgggcgt gctctgctcc tacgacccca acgtgcgcct cccgctctgg ccgtcgcccc 300
acgccgcacg cgagggcatc ctcagcatct ggaaggaggc cgacttcacg aaggtcagcg 360
acgacgaggt ggccttcctc acgcgcggtg acgccaacga cgagaagaac gtgctgtccc 420
tgtggtttga cgggctcaa 439

<210> 1209
<211> 383
<212> nucleic acid
<213> Zea mays

<400> 1209

aatcgacaag cacgcgcgga cggcgcctggc cttcgtgacg ctcaagcacg acggggagcg 60
cgagttcatg ttctacagga acccgagcgc ggacatgctg ctgacggagg cggagctgga 120
cctgggcctg gtgcgggcgc ccagggtgtt ccaactacggc tccatctcgc tcatctccga 180
gccgtgccgc tcgggcgcaca tggccgccat gcgcgcagcc aaggcggcgg gcgtgctctg 240
ctcctacgac cccaacgtgc gcctcccgtc ctggccgtcg cccgacgccg cacgcgaggg 300
catcctcagc atctggaagg aggccgactt catcaaggtc agcgacgacg aggtggcctt 360
cctcacgcgc ggggacgcca acg 383

<210> 1210
<211> 451
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (439)
<223>

<400> 1210

cgacgagttc gggcacatgt tggatgaacat cctgaagcag aacattgtga actcggaggg 60
gtgcctgttc gacaagcacg cgcggacggc gctggccttc gtgacgctca agcacgacgg 120
ggagcgcgag ttcatgttct acaggaaccc gagcgcggac atgctgctga cggaggcgga 180
gctggacctg ggcctggtgc ggcgcgcaa ggtgttccac tacggctcca tctcgtcat 240
ctccgagccg tgccgctcgg cgcacatggc cgccatgcgc gcagccaagg ccgcgggcgt 300
gctctgctcc tacgacccca acgtgcgcct tccgctctgg ccgtcgcccc acgccgcacg 360

cgagggcatc ctcagcatct ggaaggaggc cgacttcac aaggtcagcg acgacgaggt 420
ggccttcctc acgcgcggng acgccaacga c 451

<210> 1211
<211> 497
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (11)...(13)
<223> unsure at all n locations

<400> 1211

gagagttctc nnnttaagta gcttactgtc ttggtagtagt tcgtaccgga tcggagtttc 60
cgaccaaacc gtccggtccg acaggacgcc tcgaccgggg ttggctttct tgccgttaag 120
ccccaacggg gacggcaagt taatgtatta caggaacca accgcggaca tgctgtttac 180
ggaggcggag ctggacctgg gcctgggtccg gtgcgccagg gtgttccact acgggtccat 240
ctcgtcatc tccgatccgt gccggtcggc gcacatggcc gacatgcgcg cagccaatgc 300
cgcgggcggtg ctctgggtcct acgacctcaa cgtgcgcctt ccgctctggc cgtcgcccga 360
cgccgtacgc gagggcatcc tcagcatctg gaacgaggcc gacttcacatca aggtcagcga 420
cgacgatgtg gccttactca cgcgcgggga cgccaacgac gagaagaacg tgctgtccct 480
gtggtttgac gggctca 497

<210> 1212
<211> 253
<212> nucleic acid
<213> Zea mays

<400> 1212

ctccatcttc cacaacgagg agaagctccg cgaggtcttc aagttctcca acgcctgcgg 60
cgccatgtgc accaccaaga agggcgccat cccggcgctg cccacggtcg ccaccgcccc 120
ggacctcatc gccaaaggcca actagatggc cgcacgcccc gccgttccac cacgtcactg 180
tccccgcgcg ccccgcccct cgtcgctgac gtccctcggtt tcggttcatt aggtagatcg 240
agtcttaccg tcc 253

<210> 1213
 <211> 375
 <212> nucleic acid
 <213> Zea mays

 <400> 1213

cggactcgtg ggcggactcg tgggaggact cgtgggaggga ctcgtgggag gactcgtggg 60
 ggcgtgctct gctcctacga ccccaacgtg cgctcccgcc tctggccgct gcccgacgcc 120
 gcacgcgagg gcatcctcag catctggaag gagggcgact tcatcaagggt cagcgacgac 180
 gaggtggcct tcctcacgcg cggggactcc aacgacgaga agaacgtgct gtccctgtgg 240
 tttgacgggc tcaagctgct cgtcgtcacc gacggggaca agggatgcag gtacttcacc 300
 aaggacttca agggcagcgt gcccggttc aaggtcgaca ccgtcgacac caccggcgcc 360
 ggcgacgcct tcgtc 375

<210> 1214
 <211> 411
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (116)
 <223>

<400> 1214

cccacgcgtc cgaacgagga gaagctccgc gaggtctctca agttctccaa cgctgcggc 60
 gccatctgca ccaccaagaa ggcgcgcatc ccggcgctgc ccacggctgc caccgnccag 120
 gacctcatcg ccaaggccaa ctagatggcc gcacgcccgc cgttccacca cgtcactgtc 180
 cccctcgtcg tcgacgtcct cggtttcggt tcattaggta gatcgagtct tagcgtccgt 240
 ctctgcgcct ctacgtgag acggtttgtt tgggttaatt aagttagctt tcgtggagat 300
 ttgcggccgg ggcataaat aaaatgttgg catgcgtggt gggatgctat cctttatattt 360
 tattttatatt tatttttttag cttggatcag ttgggggtttt gaacattgct a 411

<210> 1215
 <211> 403
 <212> nucleic acid
 <213> Zea mays

<210>	1218
<211>	284
<212>	nucleic acid
<213>	Zea mays

```
<220>
<221>      unsure
<222>      (268)
<223>
```

ccggtccatc	gccccctccct	cgggtctgcg	ctcccacagc	ctcaccctcg	cgcccccgcc	60
gattcgcgtc	gccctttgtt	ggaaggaacg	atggagcaga	ccttcatcat	gatcaagccc	120
gacggcgctc	agcggggcct	gatcggggac	atcatcagtc	gcttcgagaa	gaaagggttc	180
tacctcaagg	ggatgaagtt	catgaacgtg	gagaggtcct	tcgcgcacag	cactacgctg	240
acctttccga	caagactttc	ttccccngt	tggtggagta	catc		284

```
<220>
<221>      unsure
<222>      (6)
<223>
```

tgcgcncctc	cctccggtct	gcgctcccac	agcctcacc	ctgcgcccc	gccgattcgc	60
gtcgcccttt	gttgaagga	acgatggagc	agaccttc	catgatcaag	cccgcggcg	120
tccagcgggg	cctgatcggg	gacatcatca	gtcgcttcga	gaagaaagg	ttctacctca	180
aggggatgaa	gttcatgaac	gtggagaggt	ccttcgcgca	cagcactacg	ctgacctttc	240
cgacaagcct	ttcttccccg	ggttggtgga	gtacatcaat	tccggccccg	tggtgg	296

<400> 1220

<210> 1223
 <211> 327
 <212> nucleic acid
 <213> Zea mays

 <400> 1223

 cggacgcgtg gcgctccac agcctcacc ctgcgcccc gccgattcgc gtcgcccttt 60
 gttggaaaga acgatggagc agaccttcat catgatcaag cccgacggcg tccagcgggg 120
 cctgatcggg gacatcatca gtcgcttcga gaagaaaggg ttctacctca aggggatgaa 180
 gttcatgaac gtggagaggt ctttcgcgca cagcactacg ctgacctttc cgacaagcct 240
 ttcttccccg ggttgggtgga gtacatcatt tccggccccg tgggtggcgat ggtgtgtgag 300
 gggaagacgt cgtgtgactg gcccaga 327

<210> 1224
 <211> 284
 <212> nucleic acid
 <213> Zea mays

 <400> 1224

 cccccccacc cgtccatcgc ccctccctcc ggtctgcgct cccacagcct cacccttgcg 60
 cccccgccga ttgcgctcgc cttttgttgg aaggaacgat ggagcagacc ttcatcatga 120
 tcaagccccg cggcgtccag cggggcctga tcggggacat catcagtcgc ttcgagaaga 180
 aagggttcta cctcaagggg atgaagttca tgaacgtgga gaggtccttc gcgcagagca 240
 ctacgctgac ctttccgaca agcctttctt ccccggttg gtgg 284

<210> 1225
 <211> 256
 <212> nucleic acid
 <213> Zea mays

 <400> 1225

 cccctccctc cggctctgcgc tcccacagcc tcacccttgc gcccccgccg attcgcgtcg 60
 ccctttgttg gaaggaacga tggagcagac cttcatcatg atcaagcccc acggcgtcca 120
 gcggggcctg atcggggaca tcatcagtcg cttcgagaag aaagggttct acctcaaggg 180
 gatgaagttc atgaacgtgg agaggtcctt cgcgcacagc actacgctga ctttccgac 240
 aagcctttct tccccg 256

279

<400> 1229

<400> 1230

<400> 1231

433

gcactacgct gacctttccg acaagccttt cttccccggg ttggtggagt acatcattta 240
cggcaccgtg gtggcgatgg tgcggaggc gaaggacgtc gt 282

<210> 1235
<211> 283
<212> nucleic acid
<213> Zea mays

<400> 1235

ctcgacgct ctcctcctct cctatccac acgttcacgc cccctccct ccggtctgcg 60
ctccacagc ctcacccctg cgcgccgcc gattcgctc gccctttgtt ggaaggaacg 120
atggagcaga cttcatcat gatcaagccc gacggcgctc agcggggcct gatcggggac 180
atcatcagtc gttcgagaa gaaagggttc tacctcaagg ggatgaagtt catgaacgtg 240
gagaggctct tcgcgcagag ccactacgct gacctttccg aca 283

<210> 1236
<211> 260
<212> nucleic acid
<213> Zea mays

<400> 1236

cgcctctct cctctcctcc cccaccgctc catcgccct cctccggctc tgcgctccca 60
cagcctcacc cctgcgcccc cgcgattcg cgtcgccctt tggtggaagg aacgatggag 120
cagaccttca tcatgatcaa gcccgacggc gtccagcggg gcctgatcgg ggacatcatc 180
agtcgcttcg agaagaaagg gttctacctc aaggggatga agttcatgaa cgtggagagg 240
tccttcgcgc agagcactac 260

<210> 1237
<211> 260
<212> nucleic acid
<213> Zea mays

<400> 1237

cgcctctct cctctcctcc cccaccgctc catcgccct cctccggctc tgcgctccca 60
cagcctcacc cctgcgcccc cgcgattcg cgtcgccctt tggtggaagg aacgatggag 120
cagaccttca tcatgatcaa gcccgacggc gtccagcggg gcctgatcgg ggacatcatc 180

agtcgcttcg agaagaaagg gttctacctc aaggggatga agttcatgaa cgtggagagg 240
tccttcgcgc acagcactac 260

<210> 1238
<211> 269
<212> nucleic acid
<213> Zea mays

<400> 1238

cgacgcctct cctcctctcc cccccaccc gtccatcgcc cctccctccg gtctgcgctc 60
ccacagcctc acccctgcgc ccccgccgat tcgcgtcgcc ctttggtgga aggaacgatg 120
gagcagacct tcatcatgat caagcccgac ggcgtccagc ggggcctgat cggggacatc 180
atcagtcgct tcgagaagaa agggttctac ctcaagggga tgaagttcat gaacgtggag 240
aggtccttcg cgcacagcac tacgctgac 269

<210> 1239
<211> 289
<212> nucleic acid
<213> Zea mays

<400> 1239

acggcgtcca gcggggcctg atcggggaca tcacagtcg cttcgagaag aaagggttct 60
acctcaaggg gatgaagttc atgaacgtgg agaggctcct cgcgcacagc actacgtgta 120
cctttccgac aagcctttct tccccgggtt ggtggagtac atcatttccg gccccgtggt 180
ggcgatggtg tgggagggga aggacgtcgt gttgactggc cgcagatcat tggggcacca 240
gccttgggag gcaccccggt acattctggg gatacgccgt gaatcgag 289

<210> 1240
<211> 263
<212> nucleic acid
<213> Zea mays

<400> 1240

cctgaagct cgacgcctct cctcctctcc tccccaccc gtccatcgcc cctccctccg 60
gtctgcgctc ccacagcctc acccctgcgc ccccgccgat tcgcgtcgcc ctttggtgga 120
aggaacgatg gagcagacct tcatcatgat caagcccgac ggcgtccagc ggggcctgat 180

cggggacatc atcagtcgct tcgagaagaa agggttctac ctcaagggga tgaagttcat 240
gaacgtggag aggtccttcg cgc 263

<210> 1241
<211> 264
<212> nucleic acid
<213> Zea mays

<400> 1241

ccctgacgct cgaagcctct cctcctctcc tccccacccc gtccatcgcc cctccctccg 60
gtctgcgctc ccacagcctc acccctgcgc ccccgccgat tcgcgtcgcc ctttggttga 120
aggaacgatg gagcagacct tcattcatgat caagcccgac ggcgtccagc ggggcctgat 180
cggggacatc atcagtcgct tcgagaagaa agggttctac ctcaagggga tgaagttcat 240
gaacgtggag aggtccttcg cgca 264

<210> 1242
<211> 257
<212> nucleic acid
<213> Zea mays

<400> 1242

ctctcctcct ctccttacac aaccgtccat cgaagctccc tccggtctgc gctcccacag 60
cctcaccctt gcggtgccga tgattcgcgt cgccttttgt tggaatgacg atggagcaga 120
ccttcattcat gatcaagccc gacggcgctc agcggggcct gatcggggac atcatcagtc 180
gcttcgagaa gaaaggggtt tacctcaagg ggaatgaagtt catgaacgtg cagaggtcct 240
tctcggaag aattagg 257

<210> 1243
<211> 313
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (55), (65), (177)
<223> unsure at all n locations
<400> 1243

ggaaggaacg atggagcaga cttcatcat gatcaagcac gacggcgcc agcgnngcct 60
gatcngggac atcatcagtc gcttcgagaa gaaggggtct acctcaagg gatgaagttc 120
atgaacgtgg agaggtcttc gcgcagagca ctacgtgac ctttccgaca agccttntct 180
tcccgggggtt ggtggagtac atcatttccg gccccgtggt ggcgatggtg tgggagggga 240
aggacgtcgt gttgactggc cgcagatcat tggggccacc agcttgggag gcaccccggt 300
acattcgtgg gat 313

<210> 1244
<211> 270
<212> nucleic acid
<213> Zea mays

<400> 1244

gtggagaacg ggaagaagga gatcgctctc tggttccctg aaggtgtggc acagtggaag 60
agcaaccttc atccctggat ctacgaggct tgagcagttg agcttggatg ccttgccctgc 120
tccatggaaa ccagagtttt gtttgagtat tatctgttgg ctctggctga agagtcataa 180
tttagcgctc tgtgtgttac accagagtta agtctgctg aacttatgtg gcatttggtt 240
gagtttctgc cttcgtgccc tgttttctaa 270

<210> 1245
<211> 275
<212> nucleic acid
<213> Zea mays

<400> 1245

tagaggagat cgctctctgg ttccctgaag gtgtggcaca gtggaagagc aaccttcac 60
cctggatcta cgaggcttga acagttgagc ttggatgact tgctgcttc catggaaacc 120
agagttttgt ttgagtatta tctgttggct ctggctgaag agtcataatt tagcgctctg 180
tgtgttacac cagagttaag tctgctgaa cttatgtggc atttgtttga gtttctacct 240
tcgtgcctg ttttctaatt taccgtgggt gtgaa 275

<210> 1246
<211> 271
<212> nucleic acid
<213> Zea mays

ggtccttcgc tcatcagcac tacgtgacc tttccgacaa gcctttcttc cccgggttgg 300
tggagtacat catttccggc cccgtggtgg cgattgtgtg ggaaggg 347

<210> 1249
<211> 340
<212> nucleic acid
<213> Zea mays

<400> 1249

gcggagcaga ctttcatcat gatcaagccc ggcggcgtcc agcggggcct gatcggggac 60
atcagcagtc gcttcgagag gaggggggttc tacctcaagg ggatgaagtt catgaacgtg 120
gagaggctct tcgcgcagca gcactacgtc gacctttccg acaagccttt cttccccggg 180
ttggtggagt acatcatttc cggccccgtg gtggcgatgg tgtgggaggg gaaggacgtc 240
gtgttgactg gccgcaggat cattggggcc accaggcctt gggaggcagc ccccggtacc 300
attcgtgggg actacgccgt ggaagtcggc aagaatgtca 340

<210> 1250
<211> 464
<212> nucleic acid
<213> Zea mays

<400> 1250

cggaacgctg ggctccccca cccgtccatc gccccctccc tccggtctgc gctcccacag 60
gctcgccctt gcgccccgc cgattcgcgt cgccctttgt tggaaggaac gatggagcag 120
accttcatca tgatcaagcc cgacggcgtc cagcggggcc tgatcgggga catcatcagt 180
cgcttcgaga agaaaggggt ctacctcaag ggtaagtgcg tttcattttg ttctcgaatt 240
gattgctgga acacgtactc tgtttaaatt tcctagctat acgcatgaac ttctctgctg 300
ttgaggcaag atttgatgtg cagattctgg tgatatctta gaattgttta atctatgtat 360
acgttcgggt gcgtgtgatc accatctgaa aaaggatgtt ggtcgtggaa gcaggaatat 420
tgctgggaga ttagatttga ttgaaaacca ttatcttgat gtca 464

<210> 1251
<211> 504
<212> nucleic acid
<213> Zea mays

<220>
 <221> unsure
 <222> (11), (32)
 <223> unsure at all n locations

<400> 1251

cgcgggggtg ngaaacgata attcggcgag cncggtccga actatccggg gccagcacg 60
 cgtccggagc tgtgctctgc tctgctctcg cctcgacagg actcgtggta aaggatggag 120
 accatgtcgg ctctcgcgag gacggcgccg ccccttctgt ggaccattcg ccggccctca 180
 tgcgcgtga ggccgacggc gtccctctcc ttcgcccggc cttcaacgac gccccgcggc 240
 cggtcggggc tggggctgag cacggcgccg gcggggagcg ggagggcggc cagggtctgc 300
 gccgtcccgc ggcgcatcgt cgctctctcg gaggttgagc aaagctacat tatgatcaaa 360
 ccagatggtg ttcagcgtgg tctggttgga gagattatct ctcgctttga gaagaaaggg 420
 tttttgttga aaggcttaaa acttttccag tgccccaagg acttggcgca ggagcattac 480
 aaggatttga agggataaac tttc 504

<210> 1252
 <211> 233
 <212> nucleic acid
 <213> Zea mays

<400> 1252

gtttttgcag ttagtagaat atgttagtgg ctctatgat agggtggaag gatttgagtt 60
 attgaatgag gcaatctctg agtatgagac ttcagaaaac aatgactcgg gaagctaccg 120
 cagattatct tatttggcat tgctccatc agtctacca tcagtatgcg agatgataag 180
 atcatattgc atgagtccat cttcacacac cggttggaag agggttattg ttg 233

<210> 1253
 <211> 180
 <212> nucleic acid
 <213> Zea mays

<400> 1253

tcgttcggca gcagcaacga ggtgctggat gggacgccga cgggagatgg ggcaccgggg 60
 caggggcagc ggggagcgag caccgtcagc atcacggctg tcggcgccctc cggcgacctc 120

gccaagaaga agatottccc ggccctcttc gccttggtct acgagggctg gctcccggag 180

<210> 1254
<211> 137
<212> nucleic acid
<213> Zea mays

<400> 1254

cacagatctt gatagggcca ctaatgagct tgtgatacgt gtgcaaccgg atgaagcaat 60

ttacctaaag attaacaaca agattcctgg tctcgggtatg cgactagata ggagtaactt 120

gaatctccat tatgccg 137

<210> 1255
<211> 272
<212> nucleic acid
<213> Zea mays

<400> 1255

ggaggacaaa cttttcgggtt ggggtgctgga cgactgcggg gattgctcag ttgccgaggg 60

atgccttatg gacacaaaca atgatcccat cgatgttgat gcacacatgt acaggtatca 120

tctacatggt ttacaatata tatttttttag gagttacttt taaaaaatat tagaaaaccc 180

cttctttgat attttcaatt tttttggtgg cttaaaaaaa caagaaagta aattttacaa 240

accttagaga tgggtctaagt cgtccatgca ta 272

<210> 1256
<211> 264
<212> nucleic acid
<213> Zea mays

<400> 1256

cccacgcgtc cgctgatttc aggttcatat ttgatgcaat gcatgcaatt actggtgcgt 60

atgccggacc catttttggt gagaaacttg gagctgatcc ggactgcata ttaaattggg 120

tgccctcttga agattttgga aatggccatc cagatccaaa tctaacttac gctaaggagc 180

ttgtttttac tatgtttgga gcccatgcac ctgactttgg tgcaacaagt gatggtgatg 240

gtgatcggaa catgattctt gggga 264

<210> 1257

<211> 299
<212> nucleic acid
<213> Zea mays

<400> 1257

gtcattttacc tgttgatgga gccataatga taacagcaag ccatctcccc tacaatcgga 60
atgggtctcaa gttttttaca agtgatgggtg ggctaaataa agctgatatc aaagatatcc 120
tggagcgtgc ttccaaaata tatgaggaat ctgcacataa taacctgaaa gaacagggggg 180
aagcttcgaa gggagttgtc actaatgtgg actacatgtc aatttatgct tctgatcttg 240
tacaagcagt tcgtaaattc gctggagaca aagaaaaacc attggaggaa ctgcatata 299

<210> 1258
<211> 242
<212> nucleic acid
<213> Zea mays

<400> 1258

atctgggctg tgtctggcgt tgctttccat acttgcagac cggaacaagg ataaggatgt 60
cggagagggga ttagtgtcag ttgaagatat tgctatggag cactggaaaa cctatggcag 120
gaattttcttg tctagatacg attatgagggc gtgtgaatca cacagtgcaa accagatgat 180
ggatcacggt agagatgtta tggcaaatac caagcctgga gagaaatacg gaaattacac 240
cc 242

<210> 1259
<211> 224
<212> nucleic acid
<213> Zea mays

<400> 1259

cggacgcgtg gcgagacgcg tgggcttgta caagcagttc gtaaattctgc tggagacaaa 60
gaaaaaccat tggaggaact gcatatagtc gttgatgcag ggaatgggtgc tgggtggtttt 120
tttgtggata aggtactcaa accattagga gctgttacca ctggaagtca attccttgag 180
cctgatgggtt tgtttcccaa tcacattccc aaccctgagg acaa 224

<210> 1260
<211> 304
<212> nucleic acid

<213> Zea mays

<400> 1260

```

gggagcctta tcagggatct gcaggagccc gccgagtccg tgctcctccg gatggacatc 60
atgggtgagc ccaaggatgc caaggaaaagg gccacacatg cagttgaggc ttttaagaac 120
tacatccagg aggacaaaact tttcggttgg gtgctggacg actgcgggga ttgctcagtt 180
gccgagggat gccttatgga cacaaacaat gatcccatcg atgttgatgc acacatgtac 240
agagcaaaac tatacgacga gaatcagaga gcagtaggca tggccacat tcgtcaaagc 300
gtgc 304

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<210> 1261

<211> 347

<212> nucleic acid

<213> Zea mays

<220>

<221> unsure

<222> (41), (144), (209)

<223> unsure at all n locations

<400> 1261

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tgtgtgactt cagatggatt gactgtatct attgaaaata nacttggagg gaagcatcac 60
cgtttcaaac gaggggtacaa gaatgtaata gacgaggcta ttcgtctgaa ctctattggt 120
gaggagtcac atttggccat gganacaagt gggcatggag cgctgaaaga gaaccactgg 180
cttgatgatg gagcatacct tatggtcana cttttgaata aacttgctgc tgctagaaca 240
ctgggttcaa gtattggtag taaagttttg actgatttgg ttgagggcct tgaagaagct 300
gatgtgacag ttgaaataag gttaaagatt gatcagaatc atgcaga 347

```

<210> 1262

<211> 287

<212> nucleic acid

<213> Zea mays

<400> 1262

```

gaattttgaa aaggtgacgg aaatagttag gagcggagaa caccggaatg atccatcctc 60
tcgtgctatc cctgccctcc cccgtataa tatcgcgccc tcgtcgccat cgtcaccaca 120
ccaccaactcc ctcaactgcc tctcaactccc gatccctgca ccaactaccgc ctctccgcg 180

```


ttgaacgcat gggtcctgga aagtcaccc tcaaatgttg gctcctgaa tttggcgctg 120
cagctgatgg agatgctgac cgcaacatga ttcttggtaa aagattcttt gtgacaccgt 180
cggactctgt tgccattatc gcagccaatg ctgttcaatc aattccttac tttgcttctg 240
gctgaaggg agttgccagg agcatgccaa catctgctgc tcttgatgtt gttgcaaaga 300
atttgaacct taag 314

<210> 1266
<211> 318
<212> nucleic acid
<213> Zea mays

<400> 1266

ggatcatccg atcctaacct tacctatgca aaagagttgg ttgaacgcat gggtcctgga 60
tagtcaccc tcaaatgttg gctcctgaa tttgggtgctg cagctgatgg agatgctgac 120
cgcaacatga ttcttggtaa aagattcttt gtgacaccgt cggactctgt tgccattatc 180
gcagccaatg ctgttcaatc aattccttac tttgcttctg gctgaaggg agttgccagg 240
agcatgccaa catctgctgc ccttgatgtt gttgcaaaga atttgaacct taagtctttt 300
gaggtgccta ctggatgg 318

<210> 1267
<211> 304
<212> nucleic acid
<213> Zea mays

<400> 1267

gtcatccgga tctaacctc acctatgcaa aagagttggt tgaacggatg ggtccttgaa 60
agtcaccc tcaaatgttg cctcctgaat ttgggtgctgc agctgatgga gatgctgacc 120
gcaacatgat tctgggtaaa agattctttg tgacaccatc ggactctgtt gccattatag 180
cggccaatgc tgttcaatca attccttact ttgcttctgg cctgaagggg gttgccagga 240
gcatgccaac atcagctgcc cttgatgttg ttgcaaagaa tttgaatctc aagttctttg 300
aggg 304

<210> 1268
<211> 298

<212>	nucleic acid
<213>	Zea mays

<400>	1268
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<210>	1269
<211>	294
<212>	nucleic acid
<213>	Zea mays

<210>	1270
<211>	328
<212>	nucleic acid
<213>	Zea mays

<210> 1271
 <211> 285
 <212> nucleic acid
 <213> Zea mays

<400> 1271

ataagcttgt cactgttgaa gatattgtcc gtcagcattg ggccacatat ggctgccatt 60
 attacacacg ctatgactat gagaatgtcg atgctggggc tgctaaggag ctgatggcaa 120
 acctagtaag catgcagtca tcactttctg atgttaacaa gttgatcaag gagatccggt 180
 ctgatgtttc tgaagtagtt gcagctgacg agtttgagta caaggatcca gttgatggct 240
 ctgtgtccaa gcaccagggc atccgatacc tcttcggaga tgggt 285

<210> 1272
 <211> 284
 <212> nucleic acid
 <213> Zea mays

<400> 1272

gttgcaaaga atttgaatct caagttcttt gaggtgccta ctgggtggaa attttttggg 60
 aatttgatgg atgctggaat gtgctcaatc tgtggtgaag aaagctttgg cactgggtct 120
 gaccacattc gtgagaaaga tggcatctgg gctgtgcttg catggctttc tattattgct 180
 ttcaagaata aggacaacct tggaggagat aagcttgtca ctgttgaaga tattgtccgt 240
 cagcattggg ccacatatgg tcgccattat tacacacgct atga 284

<210> 1273
 <211> 277
 <212> nucleic acid
 <213> Zea mays

<400> 1273

agtttacatt ctgttatgat gcactccatg gtgttgcggg agcttatgcc aaacacatct 60
 ttgtggaaga gcttgggtgct gatgaaagct cactgttgaa ttgtgtcccg aaagaggact 120
 ttggaggtgg tcatccggat cctaacctta cctatgcaa agagttgggt gaacgcattg 180
 gtcttggaag gtcacacctca aatgttgagc ctctgaatt tgggtgctgca gctgatggag 240
 atgctgaccg caacatgaat cttggtaaaa gattctt 277

<210> 1277
 <211> 275
 <212> nucleic acid
 <213> Zea mays

<400> 1277

cttcgaagca ataaaaaagc tactgacctc cccaaagttt acattctgtt atgatgcgct 60
 ccatggtggt gctggagctt atgccaaaca catctttgtg gaagagcttg gtgctgatga 120
 aagctcactg ttgaattgtg tcccaaaaga ggactttgga ggtggtcatc cggatcctaa 180
 cctcacctat gcaaaagagt tggttgaacg gatgggtctt ggaaagtcac cctcaaattgt 240
 tgaacctcct gaatttggtg ctgcagctga tggag 275

<210> 1278
 <211> 286
 <212> nucleic acid
 <213> Zea mays

<400> 1278

tctttggaga tggttcacga ctggtgttcc gcctctctgg aaccggttct gttggtgcca 60
 ccatccgtgt ctacatcgag cagtaogaga gggactcctc taagaccggc agggattcac 120
 aggacgccct tgctccgtg gttgatttgc gctcaagctc tccaagatgc aagagtacac 180
 tggacgtctt gccccaccg tcatcacata aattttgaag agtgtttttag aatgagttga 240
 ggcgcttaca caaatttcat tccggcctct tgttccatag tttttc 286

<210> 1279
 <211> 305
 <212> nucleic acid
 <213> Zea mays

<400> 1279

ctttgtgaca ccgtcggact ctgttgccat tatcgcagcc aatgctgttc aatcaattcc 60
 ttactttgct tctggactga agggagttgc caggagcatg ccaacatctg ctgcccttga 120
 tgttgttgca aagaatttga accttaagtt ctttgaggtg cctactggat ggaagttttt 180
 tgggaatttg atggatgctg gaatgtgctc aatctgtggt gaagaaaagct ttggcactgg 240
 gtctgaccac attcgtgaga aggatggcat ctgggctgtg cttgcatggc tttcaattat 300
 tgctt 305

<210> 1280
 <211> 271
 <212> nucleic acid
 <213> Zea mays

 <400> 1280

 cggacgctgg gtgcgtgctg cagctgatgg agatgctgac cgcaacatga ttcttggtaa 60
 aagattcttt gtgacaccgt cggactctgt tgccattatc gcagccaatg ctgttcaatc 120
 aattccttac tttgcttctg gcctgaaggg agttgccagg agcatgcca catctgctgc 180
 ccttgatggt gttgcaaaga atttgaacct taagttcttt gaggtgccta ctggatggaa 240
 gttttttggg aatttgatgg atgctggaat g 271

<210> 1281
 <211> 290
 <212> nucleic acid
 <213> Zea mays

 <400> 1281

 ggacaacctt ggaggagata agcttgtcac tgttgaagat attgtccgtc agcattgggc 60
 cacatatggt cgccattatt acacacgcta tgactatgag aatgtcgatg ctggggctgc 120
 taaggagctg ttggcaaccc tagtaagcat gcagtcatca ctttctgatg ttaacaagtt 180
 gatcaaggag atccggtctg atgtttctga agtagttgca gctgacgagt ttgagtacaa 240
 ggatccagtt gatggctctg tgtccaagca ccagggcatc cgatacctct 290

<210> 1282
 <211> 274
 <212> nucleic acid
 <213> Zea mays

 <400> 1282

 cgtcggactc tgttgccatt atcgcagcca atgctgtggg gatcaattcc ttactttgct 60
 tctggcctga agggagttgc caggagcatg ccaacatctg ctgctcttga tgttgttgca 120
 aagaatttga accttaagtt ctttgaggtg cctactggat ggaagttttt tgggaatttg 180
 atggatgctg gaatgtgctc aatctgtggt gaagaaagct ttggcactgg gtctgaccac 240
 attcgtgaga aggatggcat ctgggctgtg cttg 274

<210> 1283
 <211> 253
 <212> nucleic acid
 <213> Zea mays

<400> 1283

aagagcttgg tgctgatgaa agctcactgt tgaattgtgt cccaaaagag gactttggag 60
 gtggtcatcc ggatcctaac ctcacctatg caaaagagtt ggttgaacgg atgggtcttg 120
 gaaagtcata ctcaaatggt gaacctcctg aatttggtgc tgcagctgat ggagatgctg 180
 accgcaacat gattctgggt aaaagattct ttgtgacacc atcggactct gttgccatta 240
 tagcggccaa tgc 253

<210> 1284
 <211> 253
 <212> nucleic acid
 <213> Zea mays

<400> 1284

gagattcttt gtgacaccgt cggactctgt tgccattatc gcagccaatg ctgttcaatc 60
 aattccttac tttgcttctg gcctgaaggg agttgccagg agcatgccaa catctgctgc 120
 tcttgatggt gttgcaaaga atttgaacct taagttcttt gaggtgccta ctggatggaa 180
 gttttttggg aatttgatgg atgctggaat gtgctcaatc tgtggtcgaa gaaagctttg 240
 gtactgggtc tga 253

<210> 1285
 <211> 249
 <212> nucleic acid
 <213> Zea mays

<400> 1285

gcagtcata ctttctgatg ttaacaagtt ggtcaaggag atccggtctg atgtttctga 60
 agtagttgca gctgacgagt ttgagtacaa ggatcctgtt gatggctctg tgtccaagca 120
 ccagggcata cgatacctct ttggagatgg ttcacgactg gtgttccgcc tctctggaac 180
 cggttctggt ggtgccacca tccgtgtcta catcgagcag tacgagaggg actcctctaa 240
 gaccggcag 249

<210> 1286
 <211> 259
 <212> nucleic acid
 <213> Zea mays

<400> 1286

cgactggtgt tccccctctc tggaaccggt tctgttggtg ccaccatccg tgtctacatc 60
 gagcagtacg agaggggactc ctctaagacc ggcagggatt cacaggacgc ccttgctccg 120
 ctggttgatg ttgcgctcaa gctctccaag atgcaagagt aactggacg ctctgcccc 180
 accgtcatca cataaatttt gaagagtgtt ttagaatgag ttgaggcgct tacacaaact 240
 ttcattccgg cctcttggt 259

<210> 1287
 <211> 248
 <212> nucleic acid
 <213> Zea mays

<400> 1287

ctttgaggtg cctactggat ggaagttttt tgggaatttg atggatgctg gaatgtgctc 60
 aatctgtggt gaagaaagct ttggcactgg gtctgaccac attcgtgaga aggatggcat 120
 ctgggctgtg cttgcatggc tttcaattat tgctttcaag aataaggaca accttgaggg 180
 agataagctt gtcactgtcg aagatattgt ccgtcagcac tgggccacat atggtcgcca 240
 ttactaca 248

<210> 1288
 <211> 235
 <212> nucleic acid
 <213> Zea mays

<400> 1288

caaccttgga ggagataagc ttgtcactgt tgaagatatt gtccgtcagc actgggccac 60
 atatggctgc cattactaca cacgctatga ctatgagaat gttgatgcag gggctgctaa 120
 ggagcttatg gcaaacctag taagcatgca gtcactcatt tctgatgtta acaagttggt 180
 caaggagatc cggctctgatg tttctgaagt agttgcagct gacgagtttg agtac 235

<210> 1289
 <211> 233
 <212> nucleic acid
 <213> Zea mays

<400> 1289

caattcctta ctttgcttct ggctgaagg gagttgccag gagcatgcca acatctgctg 60
 cccttgatgt tgttgcaaag aatttgaacc ttaagttctt tgagggtgctt actggatgga 120
 agtttttttg gaatttgatg gatgctggaa tgtgctcaat ctgtggtgaa gaaagctttg 180
 gcactgggtc tgaccacatt cgtgagaagg atggcatctg ggctgtgctt gca 233

<210> 1290
 <211> 253
 <212> nucleic acid
 <213> Zea mays

<400> 1290

ggaggagata agcttgtcac tgtcgaagat attgtccgtc agcactgggc cacatatggt 60
 cgccattact acacacgcta tgactatgag aatgttgatg caggggctgc taaggagctt 120
 atggcaaacc tagtaagcat gcagtcacat ctttctgatg ttaacaagtt ggtcaaggag 180
 atccggctctg atgtttctga agtagttgca gctgacgagt ttgagtacaa ggatcctgtt 240
 gatggctctg tgt 253

<210> 1291
 <211> 231
 <212> nucleic acid
 <213> Zea mays

<400> 1291

gcacgagaaa gctttggcac tgggtctgac cacattcgtg agaaagatgg catctgggct 60
 gtgcttgcat ggctttctat tattgctttc aagaataagg acaaccttgg aggagataag 120
 cttgtcactg ttgaagatat tgtccgtcag cattgggcca catatggctg ccattattac 180
 acacgctatg actatgagaa tgtcgatgct ggggctgcta aggagctgat g 231

<210> 1292
 <211> 223
 <212> nucleic acid
 <213> Zea mays

<400> 1292

gtcatcactt tctgatgtta acaagttgat caaggagatc cggctctgatg tttctgaagt 60
agttgcagct gacgagtttg agtacaagga tccagttgat ggctctgtgt ccaagcacca 120
gggcatccga tacctcttcg gagatggttc acgactggtg ttccgtctat ccggaaccgg 180
ttctgttggt gccgacatcc gtgtctacat cgagcaatac gag 223

<210> 1293

<211> 232

<212> nucleic acid

<213> Zea mays

<400> 1293

cccacgcgtc cggttgaaga tattgtccgt cagcactggg ccacatatgg tcgccattac 60
tacacacgct atgactatga gaatgttgat gcaggggctg ctaaggagct tatggcaaac 120
ctagtaagca tgcagtcate actttctgat gttaacaagt tggtaagga gatccggtct 180
gatgtttctg aagtagttgc agctgacgag tttgagtaca aggatcctgt tg 232

<210> 1294

<211> 245

<212> nucleic acid

<213> Zea mays

<400> 1294

gagatccggt ctgatgtttc tgaagtagtt gcagctgacg agtttgagta caaggatcca 60
ttgatggct ctgtgtccaa gcaccagggc atccgatacc tottcggaga tggttcacga 120
cttatccgg aaccggttct gttggtgcca ccatccgtgt ctaattgggc 180
cttatccgg aaccggttct gttggtgcca ccatccgtgt ctaattgggc 240
cttatccgg aaccggttct gttggtgcca ccatccgtgt ctaattgggc 245

gtc cgccagcact gggccacata 60

tagaactata gaacaagagg cttgaatgaa aatttgtgta agcgctcaa ctcattg 297

<210> 1299
 <211> 310
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (25), (90)
 <223> unsure at all n locations

<400> 1299

atcatttcta tacacacaac agtanacatg tcagcaacct cttgtattgt tatgttagat 60
 ggataaattc tgttaacatg tggatatatan atggggccaa tcacttgtgt tctgaccaca 120
 ttcgtgagaa ggatggcatc tgggctgtgc ttgcatggct ttcaattatt gctttcaaga 180
 ataaggacaa ccttggagga gataagcttg tcactgttga agatattgtc cgtcagcact 240
 gggccacata tggtcgccat tactacacac gctatgacta tgagaatgtt gatgcagggg 300
 ctgctaagga 310

<210> 1300
 <211> 211
 <212> nucleic acid
 <213> Zea mays

<400> 1300

agtacctaca ggggtggaat tttttgggaa tttgatggat gctggaatgt gctcaatctg 60
 tggatgaagaa agctttggca ctgggtctga ccacattcgt gagaaagatg gcatctaggc 120
 tgtgcttgca tggctttcta ttattgcttt caagaataag gacaaccttg gaggagataa 180
 gcttgtcact gttgaagata ttgtccgtca g 211

<210> 1301
 <211> 218
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (118)
 <223>

<400> 1301
 tgagcgccat tactacacac gctatgacta tgagatgttg atgcaggggc tgctaaggag 60
 cttatggcaa acctagtaag catgcagtca tcactttctg atgttaacaa gttgttttca 120
 ggagatcggc ctgatgtttc tgatgtagtt gcagctgacg agtttgagta caaggatcct 180
 gttgatggct ctgtgtccaa gcaccagggc atccgata 218

<210> 1302
 <211> 173
 <212> nucleic acid
 <213> Zea mays

<400> 1302
 actattattg ctttcaatca taaggacaaa cttggaagag ataagcttgt cactgttgaa 60
 gatattgtcc gtcagcattg ggcgacatat ggctgccatt attacacacg ctatgactat 120
 gagaatgtcg atgctggggc tgctaaggcg ctgatggcaa acctaataag cat 173

<210> 1303
 <211> 264
 <212> nucleic acid
 <213> Zea mays

<400> 1303
 ccctctccct tttttttttt tgagtaaatt attttttagta ctcagaaaaa aagataagca 60
 aatgctcaaa caaaaccaga aacacttcct aacaagatta caagacacac gctcccgatt 120
 acagcactgt cactgtgaca agattattac cgcagtctgt gccagcggct cagtccgctg 180
 cactgcagta catggacaaa aaaaaaacgg ggcgagtctg atacatacat tttattcatt 240
 ggtgagatgc aacaggaagt agaa 264

<210> 1304
 <211> 198
 <212> nucleic acid
 <213> Zea mays

<400> 1304
 gcacgaggtt gcatctcacc aatgaataaa atgtatgtat cagactcgcc ccgttttttt 60
 tttgtccatg tactgcagtg cagcggactg agccgctggc acagcatggc ggtaataatc 120

ttgtcacagt gacagtgctg taatcgggag cgtgtttctt gtaatcttgt taggaagtgt 180
 ttctggtttt gtttgagc 198

<210> 1305
 <211> 303
 <212> nucleic acid
 <213> Zea mays

<400> 1305

caaatgacca tctggaacac tgtttctgct aatgccagcc ttttcatctt ctgcttgtat 60
 gcagctgtcc ggtcttagat gcatttgaaa tttctctatg cactgaacac tacttatgtt 120
 attccattat tgtaataaca ggagcatgcc aacatctgct gctcttgatg ttgttgcaaa 180
 gaatttgaac ctttaagttct ttgaggtgcc tactggatgg aagttttttt gggaatttga 240
 tggatgctgg aatgtgctca atctgtggtg aagaaagctt tggcactggg tctgaccaca 300
 ttc 303

<210> 1306
 <211> 122
 <212> nucleic acid
 <213> Zea mays

<400> 1306

ctttctgatg ttaacaagtt ggtcaaggag atccggtctg atgtttctga agtagttgca 60
 gctgacgagt ttgagtacaa ggatcctggt gatggctctg tgtccaagca ccagggcatc 120
 cg 122

<210> 1307
 <211> 118
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (12), (37)
 <223> unsure at all n locations

<400> 1307

cggctctgatg tntctgaagt agtgcagctg acgagtnntga gtacaaggat cctgttgatg 60

gctctgtgtc caagcaccag ggcattccgat acctcttttg agatgggttca cgactgggt 118

<210> 1308
<211> 291
<212> nucleic acid
<213> Zea mays

<400> 1308

caaataacca tctggaacac tgtttctgct aatgccagcc ttttcatctt ctgcttggtat 60
gcagctgtcc ggtcttagat gcatttgaaa tttctctatg cactgaacac tacttatggt 120
attccattat tgtaataaca ggagcatgcc aacatctgct gctcttgatg ttgttgcaaa 180
gaatttgaac cttaagttct ttgaggtgcc tactggatgg aagttttttt gggaatttga 240
tggatgctgg aatgtgctca atctgtggtg aagaaagctt tggcactggg t 291

<210> 1309
<211> 104
<212> nucleic acid
<213> Zea mays

<400> 1309

caactctaag accggcaggg attcacagga cgcccttgca ccgcaggttg atgtagcgct 60
caagctcacc aagatgcaag agtacacagg acgctcagcc ccca 104

<210> 1310
<211> 321
<212> nucleic acid
<213> Zea mays

<400> 1310

tgtctctccg ccgggacgcc gtcagccgcc caggcgctca agatcagttc aatcccagacc 60
aagccagttg aggggcagaa gactgggact agtggcctga ggaaaaaggt gaaagtattc 120
cagcaggaga actaccttgc taattggatt caggctctat tcaattcctt gccccctgaa 180
gattatgtgg gtgcaaccct tgtacttggg ggtgatggcc ggtactttaa caaggaggct 240
gctcagatca tcattaagat tgcagctgga aatggagttc agaagatcat agttggcagg 300
aatggtctac tgtcaacacc t 321

<210> 1311

<211> 306
 <212> nucleic acid
 <213> Zea mays

 <400> 1311

 ccacgcgtcc gccacgcgtc cgcccacgcg tccgccacgc gtccgggacc tgggatattc 60
 cagcaggaga actaccttgc taattggatt caggctctat tcaattcctt gccccctgaa 120
 gattatgtgg gtgcaacctt gtacttgggg gtgatggccg gtactttaac aaggaggctg 180
 ctcagatcat cattaagatt gcagctggaa atggagttca gaagatcata gttggcagga 240
 atggtctact gtcaacacct gctgtatctg ctgtaattcg taaaagaaaa gccaatggcg 300
 gcttta 306

<210> 1312
 <211> 311
 <212> nucleic acid
 <213> Zea mays

 <400> 1312

 cttgtacttg ggggtgatgg ccggtacttt aacaaggagg ctgctcagat catcattaag 60
 attgcagctg gaaatggagt tcagaagatc atagttggca ggaatggtct actgtcaaca 120
 cctgctgtat ctgctgtaat tcgtaaaaga aaagccaatg gcggctttat catgagtgca 180
 agccataatc caggtggacc agacaatgac tggggtatta agtttaacta cagcagtgga 240
 cagccagcac cggagacgat tactgatcaa atttatggaa acacactatc aatttctgaa 300
 ataaaaacag c 311

<210> 1313
 <211> 265
 <212> nucleic acid
 <213> Zea mays

 <400> 1313

 ttcagaagat catagttggc aggaatggtc tactgtcaac acctgctata tctgctgtaa 60
 ttcgtaaaag ataagccaat ggcggcttta tcatgagtgc aagccataat ccaggtggac 120
 cagacaatga ctgggggtatt aagtttaact acagcagtgg acagccagca ccggagacga 180
 ttactgatca aatttatgga aacacactat caatttctga aatacaaaca gcagacattc 240

ctgataactga tttgtcctct gttgg

265

<210> 1314
<211> 302
<212> nucleic acid
<213> Zea mays

<400> 1314

cgatcatcaca taaatdddga agaacgtddd agaatgagtt gaggcgctta cacaaacttt 60
cattccggcc tcttggtcca tagtdtttct tgcattgttac atctcaccga tgaataaaaat 120
gtatgtatca gacttgtctc gtdtdtttgc ccatccaagc agcaaattag ccgctggcac 180
agcatgcggt aataatcttg tcacagtgtc gtaattggga gcgttdttct tgttagaagt 240
gttdctgggt tgttgagca tttgcgtatc gatttdtctt tctgaagagt ataaattatt 300
tt 302

<210> 1315
<211> 300
<212> nucleic acid
<213> Zea mays

<400> 1315

tctcaactccc gtgtcgtgtc tagcgccgac gggttgctac cggagccggc cagcggccac 60
gatgcctaca atgcacgcgc ttcgcctatg cccgctgtc tccaccatcc gatccacacc 120
accgcgggcc actgcgcag cccgccaggc gcgtcttctg tcgcccgtg ctctccgcc 180
gggacgcctg cagccgccc ggcgtcaag atcagttcaa tcccgaacaa gccagttgag 240
gggcagaaga ctgggactag tggcctgagg aaaaagggtga aagtattcca gcaggagaac 300

<210> 1316
<211> 356
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (82), (323)
<223> unsure at all n locations

<400> 1316

cgatccctgc accactaccg cctcctccgc ttcacccctc tcgtcgctc ttgcggcgac 60

<210> 1322
 <211> 284
 <212> nucleic acid
 <213> Zea mays

 <400> 1322

 gtgcagatgg atcaaaggct actggtgcct tcattcttgac agcgagccat aaccaggtg 60
 gtcctaagga ggacttcggg atcaaataca acatgggaaa tgggtggcct gtcctgaat 120
 ctgttaccga caagattttc tctaatacaa cgacaatctc tgaatacctc atctctgaag 180
 acctaccaga tgttgatatt tctgttgctg gtgtcaccag cttcagtga cccgaaggcc 240
 cctttgatgt ggatgttttt gactctagt tagattacat aaag 284

<210> 1323
 <211> 310
 <212> nucleic acid
 <213> Zea mays

 <400> 1323

 tatgcagatg gatcaaaggc tactggtgcc ttcattctga cagcgagcca taaccaggt 60
 ggtcctacgg aggacttttg tatcaaatac aatatgggaa atggtggacc tgcccctgaa 120
 tccgttaccg acaagatttt ctctaataca acgacaatct ctgaatacct catctctgaa 180
 gaccttccag atgttgatat ttctgttgct ggtgtcacca gcttcagtgg accgaaggc 240
 ccctttgatg tggatgtctt tgactctagt gtaaattaca taaagttaat gaagacaatt 300
 tttgacttcg 310

<210> 1324
 <211> 296
 <212> nucleic acid
 <213> Zea mays

 <400> 1324

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 ccggcggcgg atcgtccgca gcgcaacgca accatggggc tcttcaccgt gacgaagaag 120
 gccaccaccc ccttcgaagg ccagaagccc ggtacctccg gcctccgcaa gaaggttact 180
 gtattccagc agcctcatta tctgcagaac ttgtccagt caacattcaa tgcccttcct 240
 gcagaccaag taaaagggtg aactattgtt gtctctggtg atggccgcta tttctc 296

The first of these is the fact that the
 \mathbb{Z}_2 -invariant is not a topological invariant.
 This is because the \mathbb{Z}_2 -invariant is
 not a homotopy invariant. In other words,
 the \mathbb{Z}_2 -invariant can change under a
 continuous deformation of the manifold.
 This is in contrast to the Chern-Simons
 invariant, which is a topological invariant.
 The second of these is the fact that the
 \mathbb{Z}_2 -invariant is not a local invariant.
 This is because the \mathbb{Z}_2 -invariant is
 not a function of the local geometry of the
 manifold. In other words, the \mathbb{Z}_2 -invariant
 is a global invariant. This is in contrast
 to the Chern-Simons invariant, which is a
 local invariant.

gaaatgggtgg	gcctgctcct	gaatctgtta	cgcacaagat	tttctctaata	acaacgacaa	60
tctctgaata	cctcatctct	gaagacctac	cagatgttga	tatttctggt	gtcgggtgtca	120
ccagcttcag	tggacctgaa	ggcccccttg	atgtggatgt	ttttgactct	agtgtagatt	180
acataaagtt	aatgaagtca	atTTTTgact	togaagcaat	aaaaaagctg	ctgacctccc	240
caaagtttac	attctgttat	gatgc				265

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<220>
<221>      unsure
<222>      (273)
<223>
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cctcactgcc	ctctcactcc	cgatccctgc	accactaccg	cctcctccgc	gtcacccttc	60
tcgtegcttc	ttgggcgac	cggcggcgga	tcgtccgcag	cgcaagcgca	accatggggc	120
tcttcacgt	gacgaagaag	gccaccaccc	ccttcgaagg	ccagaagccc	ggtacctccg	180
gcctccgcaa	gaaggttact	gtattccage	agcctcatta	tctgcagaac	tttgtccagt	240
caacattcaa	tgcccttctt	gcagaccaag	tanaaggtgc	a		281

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<220>
<221>      unsure
<222>      (176)
<223>
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466

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 acctaccaga tgttgatatt tctgttgctg gtgtcaccag cttcagtggga cccganatcc 180
 cctttgatgt ggatgttttt gactctagtg tagattacat aaagttaatg aagacaattt 240
 ttgacttcga 250

<210> 1328
 <211> 255
 <212> nucleic acid
 <213> Zea mays

<400> 1328

gaaatggtgg gctgtctcct gaatctgtta ccgacaagat tttctctaata acaacgacaa 60
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 ccagcttcag tggacctgaa ggcccccttg atgtggatgt ttttgactct agtgtagatt 180
 acataaagtt aatgaagtca atttttgact tcgaagcaat aaaaaagctg ctgacctccc 240
 caaagtttac attct 255

<210> 1329
 <211> 267
 <212> nucleic acid
 <213> Zea mays

<400> 1329

cccacgcgtc cgccactcct tccctgcct ctcactcccg atccctcctc caccaccgct 60
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 gcgcaaccat ggggctcttc actgtgacga agaaggccac cagcccttc gacggccaga 180
 agcccggcac ctccggcctc cgcaagaagg ttactgtatt ccagcagccc cattatctgc 240
 agaactttgt ccaatcaaca ttcaatg 267

<210> 1330
 <211> 308
 <212> nucleic acid
 <213> Zea mays

<400> 1330

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 tccctcaactg ccctctcaact cccgatccct gcaccactac cgctcctcc gcttcagccc 180
 tctcgtcgcc tcttgcgggcg accggcgggcg gatcgtcgcg ggcgcaacgc aaccatgggg 240
 ctcttcaccg tgacgaagaa ggccaccacc cccttcgaag gccagaagcc cggtagctcc 300
 ggctccg 308

<210> 1331
 <211> 244
 <212> nucleic acid
 <213> Zea mays

<400> 1331
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 tctctgaata cctcatctct gaagacctac cagatgttga ttttctgtt gtcggtgtca 120
 ccagcttcag tggacccgaa gcccctttga tgtggatgtt tttgactcta gtgtagatta 180
 cataaagtta atgaagacaa tttttgactt cgaagcaata aaaaagctgc tgacctcccc 240
 aaag 244

<210> 1332
 <211> 266
 <212> nucleic acid
 <213> Zea mays

<400> 1332
 ccactctctc gtgtatatcc tgcctcccc cgctataata tcgcgcctc gtcgcatcg 60
 tcaccacacc accactccct cactgcctc tcaactccga tccctgcacc actaccgct 120
 cctccgctc accctctctg tcgctcttg cggcgaccgg cggcgatcg tccgcggcgc 180
 aacgcaacca tggggctctt caccgtgacg aagaaggcca ccacccctt cgaaggccag 240
 aagcccggtta cctccggcct ccgcaa 266

<210> 1333
 <211> 221
 <212> nucleic acid
 <213> Zea mays

<400> 1333
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 gtcacccgtg aaagagttgg tgcagatgga tcaaaggcta ctggtgcctt catcttgaca 120
 gcgagccata acccaggtgg tctaaggag gacttcggga tcaaatacaa catgggaaat 180
 ggtgggcctg ctctgaatc tgttaccgac aagatcttct c 221

<210> 1334
 <211> 230
 <212> nucleic acid
 <213> Zea mays

<400> 1334
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 gcctcttgcg gcgaccggcg gcggatcgctc cgcggcgcaa gcacaaccat ggggctcttc 120
 accgtgacga agaaggccac ccccccttc gaaggccaga agcccggtag ctccggcctc 180
 cgcaagaagg ttactgtatt ccagcagcct cattatctgc agaactttgt 230

<210> 1335
 <211> 271
 <212> nucleic acid
 <213> Zea mays

<400> 1335
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 cggatcgctc gatgcgcacg cgtaacactg gggctcttca ccgtgacgaa gaaggccacc 120
 acccccttcg aaggccagaa gcccggtacc tccggcctac gcaagaagg tactgtattc 180
 cagcagcctc attatctgca gaacttggtc cagtcaacat tcaactgcct tcctgcagac 240
 caagtaaaag gtgcaccatt gttgtctctg g 271

<210> 1336
 <211> 238
 <212> nucleic acid
 <213> Zea mays

<400> 1336
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aacgcgacca tggggctctt caccgttccg aagaaggtca ccatccccctt cgaaggccag 120
aagccccggtta cctccggcct ccgcaagaag gttactgtat tccagcagcc tcattagctg 180
cagagctttg tcgagtcaac attcaatgtc cttcctgcag accaagtaaa atgtgcac 238

<210> 1337
<211> 163
<212> nucleic acid
<213> Zea mays

<400> 1337

ctctcactcc cgatccctgc accactaccg cctcctccga gtcacccctc tcgtcgctc 60
ttgcggcgac cggcggcgga tcgtccgcag cgcaacgcaa ccatggggct cttcacctg 120
acgaagaagg ccaccacccc cttcgaaggc cagaagcccg gta 163

<210> 1338
<211> 224
<212> nucleic acid
<213> Zea mays

<400> 1338

gaatggtggg ctgctcctga atctgttacc gacaagattt tctctaatac aacgacaatc 60
tctgaatacc tcattctctga agacctacca gatgttgata tttctgttgt cgggtgtcacc 120
agcttcagtg agaccgaagg ccccttgatg tggatgtttt gactcaagtg tagattacat 180
aagtaatgaa gcaattttga ctccaagcat aaaaaactgt gact 224

<210> 1339
<211> 192
<212> nucleic acid
<213> Zea mays

<400> 1339

ctgccctctc actcccgatc cctgcaccac taccgcctcc tccgcttcac cctctcgtc 60
gcctcttgct gcgaccggcg gcggatcgtc cgcagcgcaa gcgcaaccat ggggctcttc 120
accgtgacga agaaggccac ccccccttc gaaggccaga agcccggtag ctcggcctc 180
cgcaagaagg tt 192

<210> 1340
 <211> 141
 <212> nucleic acid
 <213> Zea mays

<400> 1340

gcctccctgc cctctcactc ccgatccctc ctccaccgcc gcttcctccg cgtcaccctc 60
 ctcgtagtcg cctcacgagg cgaccagcgg cggaccctcc gcggcgcaac catggggctc 120
 ttcactgtga cgaagaaggc c 141

<210> 1341
 <211> 255
 <212> nucleic acid
 <213> Zea mays

<400> 1341

gcgagatcaa tgccaaccag tgggtgctctt gatcgtgttg ccgagaaatt gaatgttcca 60
 ttctttgagg ttccaacagg ctggaaaattt tttggcaacc taatggatgc aggaaaattg 120
 tctatttgtg gagaggaaaag ttttgggact ggatctgatc acatcagaga gaaggatggc 180
 atctgggctg ttctggcttg gctttccata cttgcacacc ggaacaagga taagaaggtc 240
 ggagagagat tagtg 255

<210> 1342
 <211> 273
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (2), (230), (260), (269)
 <223> unsure at all n locations

<400> 1342

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 tacctgcac cattaggttg ccaaaaaatt gtctatttgc ggagaggaaa gttttgggac 120
 tggatctgat cacatcagag agaaggatgg catctgggct gttctggctt ggctttccat 180
 acttgcacac cggaacaagg ataagaaggc cggagagaga ttagtgtcan ttgaggatat 240
 tgctatggag cactggaaan cctatggcng gat 273

<210> 1343
 <211> 268
 <212> nucleic acid
 <213> Zea mays

 <400> 1343

 ctcatctctg aagaccttcc agatgttgat atttctgttg tcggtgtcac cagcttcagt 60
 ggacccgaag gcccctttga tgtggatgtc tttgactcta gtgtaaatta cataaagtta 120
 atgaagacaa tttttgactt cgaagcaata aaaaagctac tgacctcccc aaagtttaca 180
 ttctgttatg atgcgctcca tgggtgttgct ggagcttatg ccaaacacat ctttgtggaa 240
 gagcttggtg ctgatgaaag ctcaactgt 268

<210> 1344
 <211> 236
 <212> nucleic acid
 <213> Zea mays

 <400> 1344

 catctctgaa gacctaccag atgttgatat ttctgttgtc ggtgtcacca gcttcagtgg 60
 acccgaagcc cctttgatgt ggatgttttt gactctagt tagattacat aaagttaatg 120
 aagacaattt ttgacttcga agcaataaaa aagctgctga cctccccaaa gtttacattc 180
 tgttatgatg cactccatgg tgttgcggga cttatgccat acacatcttt gtggaa 236

<210> 1345
 <211> 433
 <212> nucleic acid
 <213> Zea mays

 <400> 1345

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 caaattggag ggtgtagacg gtagtacggt atcaaaacaa ggacttcgat ttgttttcac 120
 tgatggatct aggattatct tccggctttc gggaaccgga tctgctggag ctactatccg 180
 cctctacata gaacaatttg aatctgatat ctcgaagcat agtctcgatg ctcaaacagc 240
 tttgaagcct ttaatagacc tggctttgtc tgtttcgaag ctcaaggact tcacaggaag 300
 agagaaacct actgtcataa cataggccct gtttgtttcg gcttttggca gcttctggcc 360

<213> Zea mays

<400> 1348

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gttgatgcag gggctgctaa ggagcttatg gcaaacctag taagcatgca gtcatcactt 120
tctgatgtta acaagttggt caaggagatc cggctctgatg tttctgaagt agttgcagct 180
gacgagtttg agtacaagga tctgtttgat ggctctgtgt ccaagcacca gggcatccga 240
tacctctttg gagatgggtc acgactgggtg ttccgcctct ctggaaccgg ttctgttggt 300
gccaccatcc gtgtctacat cgagcagtac gagagggact cctctaagac cggcagggat 360
tcacaggacg cccttgcttc gctggttgat gttgcgctca agctcttcaa gatgcaag 418

<210> 1349

<211> 359

<212> nucleic acid

<213> Zea mays

<400> 1349

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aatttgaacc ttaagttctt tgaggtgcct actggatgga agtttttttg gaatttgatg 120
gatgctggaa tgtgctcaat ctgtggtgaa gaaagctttg gcactgggtc tgaccacatt 180
cgtgagaagg atggcatctg ggctgtgctt gcatggcttt caattattgc tttcaagaat 240
aaggacaacc ttggaggaga taagcttgct acttgatgaag atattgtccg tcagcactgg 300
gccacatatg gtcgccatta ctacacacgc tatgactatt aaaatgttga tgcacgggc 359

<210> 1350

<211> 421

<212> nucleic acid

<213> Zea mays

<400> 1350

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tctttgtgac accgtcggac tctgttgcca ttatgcagc caatgctgtt caatcaattc 120
cttactttgc ttctggcctg aaggaggttg ccaggagcat gccaacatct gctgcccttg 180
atgttggtgc aaagaatttg aaccttaagt tctttgaggt gcctactgga tggaagtttt 240

ttgggaattt gatggatgct ggaatgtgct caatctgtgg tgaagaaagc tttggcactg 300
 ggtctgacca cattcgtgag aaggatggca tctgggctgt gcttgcacgg ctttcaatta 360
 ttgctttcaa gaataaggac aaacttggag gagataagct tgtcactggt gaagatattg 420
 t 421

<210> 1351
 <211> 377
 <212> nucleic acid
 <213> Zea mays

<400> 1351

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 ccttgagttc tttgaggtgc ctactggatg gaagcttttt gggaattgga tggatgctgg 120
 aatgtgctca atctgtggtg aagaaagctt tggcactgtg gctgaccaca ttcgtgagaa 180
 ggatggcatt tgggctgagc ttgcatggct atcaattatt gctttcaaga gtttggacag 240
 ccttgtagga gataagcttg tcatgatga agatatgtgt cgctagcact ggtccacata 300
 tggtcgctat ttctacactc gctatgacta tgagaatttt tatgcacggg ctgctaata 360
 gcttattgct tacctag 377

<210> 1352
 <211> 343
 <212> nucleic acid
 <213> Zea mays

<400> 1352

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 agcagtacga gagggactcc tctaagaccg gcagggattc acaggacgcc cttgctccgc 120
 tggttgatgt tgcgctcaag ctctccaaga tgcaagagta cactggacgc tctgccccca 180
 ccgtcatcac ataaattttg aagtgtttta gaatgagttg aggcgcttac acaaactttc 240
 attccggcct cttgttccat agtttttctt gcatgttaca tctcaccgat gaataaaatg 300
 tatgtatcag acttgtctcg ttaaaaaaaaa aaagaaataa aaa 343

<210> 1353
 <211> 293
 <212> nucleic acid

<213> Zea mays

<400> 1353

gccaaacaca tctttgtgga agagcttggt gctgatgaaa gctcactggt gaattgtgtc 60
ccgaaagagg actttggagg tggatcatcc gatcctaacc ttacctatgc aaaagagttg 120
gttgaacgca tgggtcttgg aaagtcattc tcaaatgttg agcctcctga atttgggtgt 180
gcagctgatg gagatgctga ccgcaacatg attcttggta aaagattctt tgtgacaccg 240
tcggactctg ttgccattat cgtaaccaat ggctgtcaat caattcctta ctt 293

<210> 1354

<211> 464

<212> nucleic acid

<213> Zea mays

<220>

<221> unsure

<222> (41), (44)

<223> unsure at all n locations

<400> 1354

aggatggagg caatggggag gaggagagaa atgtaaaactc naanccggggg gggagcacgc 60
gttccgggca aaacatattt ttgggaaaaa cctttttctg atttaagggt acaggtagaa 120
tgggggtcccg aaggaggcct ttgaagggtg caatccgatt cctaacctaa ctattccaaa 180
aaagttgggtg gacccttgg tcttggaaaa gcaatcctaa atggtgagcc ctctggattt 240
tgtgctgcag cttatggaga tgctgaccgc aacatgattc ttggtaaaaag attctttgtg 300
acaccgtcgg actctgttgc cattatcgca gccaatgctg ttcaatcaat tccttacttt 360
gcttctggcc tgaagggagt tgccaggagc atgccaacat ctgctgccct tgatgttggt 420
gcaaagaatt tgaaccttaa gttctttgag gtgcctactg gatg 464

<210> 1355

<211> 136

<212> nucleic acid

<213> Zea mays

<400> 1355

gatccggtct gatgtttctg aagtagttgt tgctgacgag tttgagtaca aggatgctgt 60
ggatggctct gtgtccaagc accagggcat ccgatacctc tttggagatg gttcacgact 120

136

<400> 1356

<400> 1357

<400>	1358
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actcacaccc	gatccctctt	ccaccaccgg	cttctctcgc	gtcacccttc	ctcgctcgtc	60
gcctcacaag	gcgaccagcg	ggcggaccct	ccgcggcgca	accatggggc	tcttcaactgt	120
gacgaagaag	gccaccacgc	ccttcgacgg	ccagaagccc	ggcacctccg	gcctccgcaa	180
gaagggttact	gtattccagc	agccccatta	tctgcagaac	tttgtccaat	caacattcaa	240
tgcccttctct	gtggatcaag	taagaggtgc	aacaattggt	gtctctggtg	atggccgcta	300

<211> 138
 <212> nucleic acid
 <213> Zea mays

<400> 1361

caacactaac aacttgtggg tgaaccttaa agctgtcaag agactagtag agctgagcac 60
 ttaagatgga attatcaacc cagaagtgat gggaatctca cttgactgat ggacattcgt 120
 cttcaacgtg atagtccg 138

<210> 1362
 <211> 264
 <212> nucleic acid
 <213> Zea mays

<400> 1362

cgttcaagaa ggttgggagc ttccttggtc gcttcaagtc catacctagc attgttgagc 60
 ttgacatctt gaaggtttcc ggtgatgttt ggttcggttc tggaattgta ctgaagggga 120
 aagtgaccat cactgcaaaa cctggcgtca agctagaaat cccagacgga gcagtgattg 180
 ggaataagga taatttttga aaaggaaaga gaaaacaata ccagatgcct tacaacctga 240
 attagggatg aaactgctaa ttgc 264

<210> 1363
 <211> 295
 <212> nucleic acid
 <213> Zea mays

<400> 1363

gtcttagggtt attatagaag ttaaaatggtt attccaatga ggcaatgact actcacaatg 60
 gaatatcacc ttgcttggtg gattatttac ggtgaagact tttagatata gtttgaactg 120
 tacctcattt atagcgtatt tacataaatg tgatacccat ctgattgttg tgatttttga 180
 tgtgtaaggt atcctcctgg tcatggtgat gtgtttcctt ctttgaataa cagcggaaaa 240
 cttgacatct tattggctca gggcaaggag tatgtctttg ttgcaaactc agaca 295

<210> 1364
 <211> 275
 <212> nucleic acid
 <213> Zea mays

<400> 1364
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 ctacagtgcc cttgggttaa tttaggcagtt cttttacgaa ggttcaagat tatctacgaa 120
 gatttgaaag tataccagat atgcttgaat tggatcacct cacagtctca ggagatgtga 180
 catttggaag aaatgtttca ttacagggaa cggttatcat cattgcatat catggtgaca 240
 cttttgatat cctcctgga gcagtattag agcac 275

<210> 1365
 <211> 283
 <212> nucleic acid
 <213> Zea mays

<400> 1365
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 tttggcaaaa agcttaaacc ggaaatcgtc atcgccctta cacatatcga tttggtttat 120
 gacatgtctg atctatatac cttgggttgat ggcttcgtta cacgtaattc agctaggact 180
 ttagggcaaa gtgatcatca ctgcaaaacc tggcgtcaag ctagaaatcc cagacggagc 240
 agtgattggg aataagattc caagttcaca cagcaggagt tgc 283

<210> 1366
 <211> 234
 <212> nucleic acid
 <213> Zea mays

<400> 1366
 gacaaatcca tcaaattcct caattgaact tagtcctgag ttcaagaagg ttgcggagct 60
 tccttggtcg cttcaagtcg atacctagca ttactgaca gcttgaagggt ttccggtgat 120
 gtttggttcg gttctggact tgtattgaag gggacagtga ccatcactgc aaaacctggc 180
 gtcaagctag aaatcccaga cggagcagtg attgggaata cggatatcag tggc 234

<210> 1367
 <211> 212
 <212> nucleic acid
 <213> Zea mays

<400> 1367

ctccaacatt gcaattcata ctttcaatca gagccagtat cctcgcattg ttaccgagga 60
 cttcttgcca cttccaagca aaggacatc ttggaaggat ggctggatc ctccaggcca 120
 tggatgatg tttccctctt tgaataacag tggaaaactc gacatcttat tggctcaggg 180
 caaggagtat gtcttcgttg ctaactagac aa 212

<210> 1368
 <211> 274
 <212> nucleic acid
 <213> Zea mays

<400> 1368

ccggcggtca gacgcgcac ttcagcaat ggcgagcag aagctgcca ctgcgcgaag 60
 caccgcggc ctcacgcaga tcagcgataa cgagaagtcc ggcttctca gcctcgtcgg 120
 ccgtacctc agcggcgacg aggagcacat cgagtgggcc aagatccaca cgcccaccga 180
 cgaggtggtg gtgcggtacg acacctgga gtccccgcca gaaggcactg aggcgaccaa 240
 gaagctgctc gacaagctcg ccgtgctcaa gctc 274

<210> 1369
 <211> 248
 <212> nucleic acid
 <213> Zea mays

<400> 1369

ctctcccaga tccgtctccc gggtcagac gcgcattctc cagcaatggc ggacgagaag 60
 cttgccaagc tgcgcgaacc accgcggcc tcacgcagat cagcgagaac gagaagtccg 120
 gcttctcag cctcgtcggc cgatacctca gtggcgacga ggagcacatc gagtgggcca 180
 agatccacac gccaccgac gaggtggtgg tgccgtacga caccctggag tccccgccag 240
 aaggcact 248

<210> 1370
 <211> 186
 <212> nucleic acid
 <213> Zea mays

<400> 1370

ctcccggtg cagacgcga tctccagcaa tggcgagca gaaacttgcc aagctgcgcg 60

aaccaccgcc ggccctcacgc agatcagcga gaacgagaag tccggcttcc tcagcctcgt 120
 cgcccgctac ctcagcggcg acgaggagca catcgagtgg gccaaagatcc acacgcccac 180
 cgacga 186

<210> 1371
 <211> 323
 <212> nucleic acid
 <213> Zea mays

<400> 1371

cagttaaagc gacatcagat ttgcagctag tacagtctga tctatataacc ttggttgatg 60
 gcttcgttac acgtaattca gccagaacaa atccatcaaa tccctcaatt gaacttagtc 120
 ctgagttcaa gaaggttggg agcttccttg gtcgcttcaa gtcgatacct agcattgttg 180
 agcttgacag cttgaagggt tccggtgatg tttggttcgg ttctggaatt gtattgaagg 240
 ggaaagtgc catcactgca aaacctggcg tcaagctaga aatcccagac ggagcagtga 300
 ttgggaataa ggatatcagt ggc 323

<210> 1372
 <211> 328
 <212> nucleic acid
 <213> Zea mays

<400> 1372

cggacgcgtg gctgacgcgt gggcggacgc gtgggatgcc attggtatca acgttccaag 60
 gtcccgtat cctaccagtt aaggcgacat cagcatttgc agctagtaca gtctgatcta 120
 tataccttgg ttgatggctt cgttacacgt aattcagcca gaacaaatcc atcaaattcca 180
 tcaattgaac ttggtcctga gttcaagaag gttgggagct tccttggtcg cttcaagtcg 240
 atacctagca ttgttgagct tgacagcttg aaggtttccg gtgatgtttg gttcggttct 300
 ggaatgtact gaacgggaaa gtgaccat 328

<210> 1373
 <211> 301
 <212> nucleic acid
 <213> Zea mays

<400> 1373

669270 EBFZEE66

ggaccagttc tttgaccatg ccattggtat caacgttcca aggtcccgtc tcctaccagt 60
 taaggcgaca tcagatttgc agctagtaca gtctgatcta tataccttgg ttgatggctt 120
 cgttacacgt aattcagcca gaacaaatcc atcaaatacc tcaattgaac ttggtcctga 180
 gttcaagaag gttgggagct tccttggtcg cttcaagtcc atacctagca ttgttgagct 240
 tgacatcttg aaggtttccg gtgatgtttg gttcggttct ggaattgtac tgaaggggaa 300
 a 301

<210> 1374
 <211> 349
 <212> nucleic acid
 <213> Zea mays

<400> 1374

agagccagta tcctcgcatt gttaccgagg acttcttgcc acttccaagc aaagggaaat 60
 ctggttaagga tggttggtat cctccaggcc atggtgatgt gttcccctct ttgaataaca 120
 gtggaaaact cgacatctta ttggtcaag gcaaggagta tgtcttcatt gctaactcag 180
 acaacttggg tgctatagtc gacatcaaga tcctgaacca tctgatcaat aaccagaatg 240
 aatactgcat ggaggttact ccaaaaacat tggtgatgt taaaggcggt actctcatct 300
 cttacgaagg aagagttcag cttttggaga ttgcccaagt acctgatga 349

<210> 1375
 <211> 357
 <212> nucleic acid
 <213> Zea mays

<400> 1375

agttgatggt gtgaaagtcc ttcaactcga aaccgcagct ggtgcagcta ttcggttctt 60
 cgacaaagcg attggaatta atgttccccg ctcaagggtt ctcccagtga aggctacatc 120
 tgatctgttg cttgtgcagt ctgatcttta caccttggtt gatggctttg tcatccgcaa 180
 cccatccaga gcgaatccag ctaacccttc aattgagctt ggacctgagt tcaagaaggt 240
 tgccaatttc cttgctcggg tcaagtccat cccagcata gttgagcttg acagcttgaa 300
 ggtttctggt gatgtctggt ttggtctggt aattacactc aagggaaggt tgacaat 357

<210> 1376

<211> 314
 <212> nucleic acid
 <213> Zea mays

 <400> 1376

 gcgagaacga gaagtcggg ttcacagcc tcgtgtcacg gtacctcagt ggggacgctg 60
 acagatcgag tggagcaaga tccagacccc tacggatgag gtggtggtgc cctacgatac 120
 cgtcgcgtcg cctcccgaag atctcgagga gacgaagaag ctgctggata agctcgttgt 180
 gctcaagctt aacggagggc tcgggacgac catgggctgc actgggccc aagtctgtcat 240
 tgaagtcgc aatgggttca cattccttga cttattgtg attcaaattg agtccctgaa 300
 caagaagtat ggat 314

<210> 1377
 <211> 309
 <212> nucleic acid
 <213> Zea mays

 <400> 1377

 ctacgatacc gtcgcgtcg cctcccgaaga tctcgaggag acgaagaagc tgctggataa 60
 gctcgttgtg ctcaagctta acggagggct cgggacgacc atgggctgca ctgggccc aa 120
 gtctgtcatt gaagtcgca atgggttcac attccttgac cttattgtga ttcaaattga 180
 gtccctgaac aagaagtatg gatgcaatgt ccttttactt ctgatgaact ctttcaacac 240
 ccatgatgac acacagaaga ttgttgagaa gtattccaac tccaacatcg aaattcatac 300
 tttcaatca 309

<210> 1378
 <211> 302
 <212> nucleic acid
 <213> Zea mays

 <400> 1378

 gttgagaagt attccaactc caacattgaa attcatactt tcaatcagag ccagtatcct 60
 cgcattgtta ccgaggactt cttgccactt ccaagcaaag ggaaatctgg gaaggatggc 120
 tggatatcctc caggccatgg tgatgtgttc cctctttga ataacagtgg aaaactcgac 180
 atcttattgg ctcagggcaa ggagtatgtc ttcgttgcta actcagacaa cttgggtgct 240

atagtcgaca tcaagatcct gaaccatctg atcaataacc agaatgaata ctgcatggag 300
gt 302

<210> 1379
<211> 319
<212> nucleic acid
<213> Zea mays

<400> 1379

ccacgcgtcc gggagcagat cgagtggagc aagatccaga cccctacgga tgaggtggtg 60
gtgccctacg ataccgtcgc gtcgcctccc gaagatctcg aggagacgaa gaagctgctg 120
gataagctcg ttgtgtcaa gcttaacgga gggctcggga cgaccatggg ctgcactggg 180
cccaagtctg tcattgaagt ccgcaatggg ttcacattcc ttgaccttat tgtgattcaa 240
attgagtccc tgaacaagaa gtatggatgc aatgtccctt tactttctgat gaactctttc 300
aacacccatg atgacacac 319

<210> 1380
<211> 322
<212> nucleic acid
<213> Zea mays

<400> 1380

cccacgcgtc cgatcttatt ggctcagggc aaagagtatg tctttgttgc aaactcagac 60
aacttgggtg ctatagtcga catcaagatc ctaaaccatc tgatcaataa ccagaacgag 120
tactgcatgg aggttactcc aaagacgctg gctgacgtta aggggtggcac tctcatctct 180
tacgaaggaa gagttcagct tttggagatt gcccaggtac ccgatgagca tgtgaatgaa 240
tttaaataca tcgagaagtt taagatatcc aacactaaca acttgtgggt gaaccttaaa 300
gctatcaaga gactcgtaga gg 322

<210> 1381
<211> 328
<212> nucleic acid
<213> Zea mays

<400> 1381

ggttaagata ttcaacacta acaacttgtg ggtgaacctt aaagctgtca agagactagt 60

agaggtctgag gcacttaaga tggaaattat tccaaacccc aaggaagttg atggtgtgaa 120
 agtccttcaa tttgaaactg cagctgggtgc agctattcgt ttctttgaca aagcgattgg 180
 aattaatgtt ccccgcctcaa gatttctccc agtgaaggct acatctgatt tattgcttgt 240
 gcagtctgat ctttacacct tggtcgatgg ctttgtcatc cgcaacccat ccagaacgaa 300
 tccagctaata ccttcgattg agcttgga 328

<210> 1382
 <211> 286
 <212> nucleic acid
 <213> Zea mays

<400> 1382

aattaatgtt ccccgcctcaa ggtttctccc agtgaaggct acatctgac tgttgcttgt 60
 gcagtctgat ctttacacct tggttgatgg ctttgtcatc cgcaacccat ccagagcgaa 120
 tccagctaac ccttcaattg agcttggaacc tgagttcaag aaggttgcca atttccttgc 180
 tcggttcaag tccatcccca gcatagttga gcttgacagc ttgaaggttt ctggtgatgt 240
 ctggtttggc tctggaatta cactcaaggg caaggtgaca attatc 286

<210> 1383
 <211> 302
 <212> nucleic acid
 <213> Zea mays

<400> 1383

caagagactc gtagagctga ggcacttaag atggaaatta ttccaaaccc caaggaagtt 60
 gatggtgtga aagtccttca actcgaaacc gcagctgggtg cagctattcg gttcttcgac 120
 aaagcgattg gaattaatgt tcccgcctca aggtttctcc cagtgaaggc tacatctgat 180
 ctggttgctt tgcagtctga tctttacacc ttggttgatg gctttgtcat ccgcaaccca 240
 tccagagcga atccagctaa cccttcaatt gagcttggaac ctgagttcaa gaaggttgcc 300
 aa 302

<210> 1384
 <211> 305
 <212> nucleic acid
 <213> Zea mays

<400> 1384

gcactctcat ctcttacgaa ggaagagttc agcttttggg gattgccccaa gtacccgatg 60

agcatgtgaa tgaatttaaa tcaatcgaga agtttaagat attcaacact aacaacttgt 120

gggtgaacct taaagctatc aagagactcg tagaggctga ggcacttaag atggaaatta 180

ttccaaaccc caaggaagtt gatggtgtga aagtccttca actcgaaacc gcagctggtg 240

cagctattcg gttcttcgac aaagcgattg gaattaatgt tccccgctca aggtttctcc 300

cagtg 305

<210> 1385

<211> 321

<212> nucleic acid

<213> Zea mays

<400> 1385

cggacgcgtg gggacgagaa gctcgataag cttcgcgcgc aggtcgccaa gctcgaccag 60

atcagcgaga acgagaagtc cgggttcacg agcctcgtgt cacggtacct cagtcgggag 120

gcggacagat cgagtggagc aagatccaga cccctacgga tgagggtggtg gtgccctacg 180

ataccgtcgc gtcgcctccc gaagatctcg aggagacgaa gaagctgctg gataagctcg 240

ttgtgctcaa gcttaacgga gggctcggga cgaccatggg ctgcactggg cccaagtctg 300

tcattgaagt ccgcaatggg t 321

<210> 1386

<211> 307

<212> nucleic acid

<213> Zea mays

<400> 1386

ctcgagccgc tctgcagtc ctgaacaaga agtatggatg caatgtccct ttactttctga 60

tgaactcttt caacacccat gatgacacac agaagattgt tgagaagtat tccaactcca 120

acatcgaaat tcatactttc aatcagagcc agtatcctcg cattgttacc gaggacttct 180

tgccacttcc cagcaaaggg aaatctggga aggatggctg gtatcctcct ggtcatggtg 240

atgtgtttcc ttctttgaat aacagcggaa aacgtgacat cttattggct cagggcaagg 300

agtatgt 307

<210> 1387
 <211> 276
 <212> nucleic acid
 <213> Zea mays

 <400> 1387

 cggagggctc gggacgacca tgggctgcac tgggcccaag tctgtcattg aagtccgcaa 60
 tgggtacaca ttccttgacc ttattgtgat tcaaattgag tccctgaaca agaagtatgg 120
 atgcaatgtc cctttacttc tgatgaactc tttcaacacc catgatgaca cacagaagat 180
 tgttgagaag tattccaact ccaacatcga aattcatact ttcatttcag agccagtatc 240
 ctcgcattgt taccgaggac ttcttgccac ttccca 276

<210> 1388
 <211> 298
 <212> nucleic acid
 <213> Zea mays

 <400> 1388

 tgtcccttta cttctgatga actctttcaa caccatgat gacacacaga agattgttga 60
 gaagtattcc aactccaaca tcgaaattca tactttcaat cagagccagt atcctcgcac 120
 tgttaccgag gacttcttgc cacttcccag caaagggaaa tctgggaagg atggctggta 180
 tctcctgggt catggtgatg tgtttccttc tttgaataac agcggaaaac ttgacatctt 240
 attggctcag ggcaaggagt atgtctttgt tgcaaactca gacaacttgg gtgctata 298

<210> 1389
 <211> 287
 <212> nucleic acid
 <213> Zea mays

 <400> 1389

 attgttgaga agtattccaa ctccaacatc gaaattcata ctttcaatca gagccagtat 60
 cctcgcattg ttaccgagga cttcttgcca cttcccagca aagggaaatc tgggaaggat 120
 ggctggatc ctctgggtca tgggtgatgtg tttccttctt tgaataacag cggaaaactt 180
 gacatcttat tggctcaggg caaggagtat gtctttgttg caaactcaga caacttgggt 240
 gctatagtcg acatcaagat cctaaaccat ctgatcaata accagaa 287

<210> 1390
 <211> 291
 <212> nucleic acid
 <213> Zea mays

 <400> 1390

 ggaggttact ccaaaaacat tggctgatgt taaaggcggg actctcatct cttacgaagg 60
 aagagttcag cttttggaga ttgccaagt acctgatgag catgtgaatg agtttaaadc 120
 aatcgagaag ttttaagatat tcaacactaa caacttgtgg gtgaacctta aagctgtcaa 180
 gagactagta gaggctgagg cacttaagat ggaaattatt ccaaacccca aggaagttga 240
 tgggtgtgaaa gtccttcaac ttgaaactgc agctggtgca gctattcggt t 291

<210> 1391
 <211> 271
 <212> nucleic acid
 <213> Zea mays

 <400> 1391

 gcttaacgga gggctcggga cgaccatggg ctgcactggg cccaagtctg tcattgaagt 60
 ccgcaatggg ttcacattcc ttgaccttat tgtgattcaa attgagtccc tgaacaagaa 120
 gtatggatgc aatgtccctt tactttctgat gaactctttc aacacccatg atgacacaca 180
 gaagattggt gagaagtatt ccaactccaa catcgaaatt catactttca atcagagcca 240
 gtatcctcgc attgtaaccg aggacttctt g 271

<210> 1392
 <211> 340
 <212> nucleic acid
 <213> Zea mays

 <400> 1392

 tgggttcaca ttccttgacc ttattgtgat tcaaattgag tccctgaaaa agaagtatgg 60
 atgcaatgtc gctttacttc tgatggacta tttcaacacc catgatgaca cacagaagat 120
 tgttgagaag tattccaact ccaacatcga aattcatact ttcaatcaga gccagtatcc 180
 tcgcattggt accgaggact tcttgccact tcccagcaaa gggaaatctg ggaaggatgg 240
 ctggtatcct cctgggtcatg gtgatgtgtt tccctctggt gaataacagc ggaaaacttg 300

acatcttatt ggctcagggc aaagagtatg tctttgttga

340

<210> 1393
<211> 257
<212> nucleic acid
<213> Zea mays

<400> 1393

agctcgttgt gctcaagctt aacggagggc tcgggacgac catgggctgc actgggcca 60
agtctgtcat tgaagtccgc aatgggttca cattccttga ccttattgtg attcaaattg 120
agtccctgaa caagaagtat ggatgcaatg tccctttact tctgatgaac tctttcaaca 180
cccatgatga cacacagaag attgttgaga agtattccaa ctccaacatc gaaattcata 240
ctttcaatca gagccag 257

<210> 1394
<211> 269
<212> nucleic acid
<213> Zea mays

<400> 1394

caaattgagt ccctgaacaa gaagtatgga tgcaatgtcc ccttacttct gatgaactct 60
ttcaacaccc atgatgacac acagaagatt gttgagaagt attccaactc caacatcgaa 120
attcatactt tcaatcagag ccagtatcct cgcattgtta ccgaggactt cttgccactt 180
cccagcaaag ggaaatctgg gaaggatggc tggatcctc ctgggtcatgg tgatgtgttt 240
ccttctttga ataacagcgg aaaacttga 269

<210> 1395
<211> 264
<212> nucleic acid
<213> Zea mays

<400> 1395

ctcgcattgt taccgaggac ttcttgccac ttccaagcaa agggaaatct gggaaggatg 60
gctggtatcc tccaggccat ggtgatgtgt tcccctcttt gaataacagt ggaaaactcg 120
acatcttatt ggctcagggc aaggagtatg tcttcgttgc taactcagac aacttgggtg 180
ctatagtcga catcaagatc ctgaaccatc tgatcaataa ccagaatgaa tactgcatgg 240

aggttactcc aaaaacattg gctg

264

<210> 1396
<211> 297
<212> nucleic acid
<213> Zea mays

<400> 1396

ggacgcgggc ttgtgcagtc tgatctttac accttggttg atggctttga gctccgcaac 60
ccatccagag cgaatccagc taacccttca attgagcttg gacctgagtt caagaagggt 120
gccaatttcc ttgctcgggt caagtccatc cccagcatag ttgagcttga cagcttgaag 180
gtttctggtg atgtctggtt tggctctgga attacactca agggcaagggt gacaattatc 240
gccaagcctg gagtgaagtt ggagattcca gatggagacg tacttgagaa caaggat 297

<210> 1397
<211> 281
<212> nucleic acid
<213> Zea mays

<400> 1397

gaaagtcctt caactcgaaa ccgcagctgg tgcagctatt cggttcttcg acaaagcgat 60
tggaattaat gttccccgct caaggtttct cccagtgaag gctacatctg atctgttgct 120
tgtgcagtct gatctttaca ccttggttga tggctttgtc atccgcaacc catccagagc 180
gaatccagct aacccttcaa ttgagcttgg acctgagttc aagaagggtg ccaatttcct 240
tgctcgggtc aagtccatcc ccagcatagt tgagcttgac a 281

<210> 1398
<211> 263
<212> nucleic acid
<213> Zea mays

<400> 1398

ccagaatgaa tactgcatgg aggttactcc aaaaacattg gctgatgtta aaggcggtag 60
tctcatctct tacgaaggaa gagttcagct tttggagatt gccaagtac ctgatgagca 120
tgtgaatgag tttaaataca tcgagaagtt taagatattc aacactaaca acttgtgggt 180
gaaccttaaa gctgtcaaga gactagtaga ggctgaggca cttaagatgg aaattattcc 240

aaacccaag gaagttgatg gtg

263

<210> 1399
<211> 288
<212> nucleic acid
<213> Zea mays

<400> 1399

cccacgcgtc cggcccaagt acccgatgag catgtgaatg aatttaaatac aatcgagaag 60
tttaagatat tcaacactaa caacttgtgg gtgaacctta aagctatcaa gagactcgta 120
gaggctgagg cacttaagat ggaaattatt ccaaaccca aggaagttga tgggtgtgaaa 180
gtccttcaac tcgaaaccgc agctgggtgca gctattcggt tcttcgacaa agcgattgga 240
attaatgttc cccgctcaag gtttctccca gtgaaggcta catctgat 288

<210> 1400
<211> 278
<212> nucleic acid
<213> Zea mays

<400> 1400

cccacgcgtc cgcaagaagt atggatgcaa tgtcccttta cttctgatga actctttcaa 60
cacccatgat gacacacaga agattgttga gaagtattcc aactccaaca tcgaaattca 120
tactttcaat cagagccagt atcctcgcat tgttaccgag gacttcttgc cacttcccag 180
caaagggaaa tctgggaagg atggctggta tctcctggt catgggtgatg tgtttccctc 240
tttgaataac agcggaaaac ttgacatctt attggctc 278

<210> 1401
<211> 278
<212> nucleic acid
<213> Zea mays

<400> 1401

gcgagaacga gaagtccggg ttcacagacc tcgtgtcacg ctacctcagt ggggaagcgg 60
acagatcgag tggagcaaga tccagacccc tacggatgag gtggtggtgc cctacgatac 120
cgtcgcgtcg cctcccgaag atctcgagga gacgagaagc tgctggataa gctcgttgtg 180
ctcaagctta acggaggggt cgggacgacc atgggctgca ctgggcccga gtctgtcatt 240

gaagtcgcga atgggttcac attccttgat cttattgt

278

<210> 1402
<211> 282
<212> nucleic acid
<213> Zea mays

<400> 1402

atctttacac cttggttgat ggctttgtca tccgcaatcc atccagagcg aatccagcta 60
acccttcgat tgagcttgga cctgagttca agaagggtgc caatttcctt gctcggttca 120
agtccatccc cagcatcgtc gagcttgaca gcttgaaggt ttctggtgat gtctggtttg 180
gttctggaat tacgctcaag ggcaagggtga caatcaccgc caagtctgga gtgaagttgg 240
aggttccaga tggagctgta tatgaaaaca aggatgtcaa tg 282

<210> 1403
<211> 270
<212> nucleic acid
<213> Zea mays

<400> 1403

gtccttcaac tcgaaaccgc agctggtgca gctattcggt tcttcgacaa agcgattgga 60
attaatgttc cccgctcaag gtttctccca gtgaaggcta catctgatct gttgcttggtg 120
cagtctgata ttacacctt gggtgatggc tttgtcatcc gcaacccatc cagagcgaat 180
ccagctaacc cttcaattga gcttggacct gagttcaaga aggttgccaa tttccttgct 240
cggttcaagt ccatccccag catagttgag 270

<210> 1404
<211> 270
<212> nucleic acid
<213> Zea mays

<400> 1404

ggagggttact ccaaagacgc tggctgacgt taagggtggc actctcatct cttacgaagg 60
aagagttcag cttttggaga ttgccaagt acccgatgag catgtgaatg aatttaaatac 120
aatcgagaag ttttaagatat tcaacactaa caacttggtg gtgaacctta aagctatcaa 180
gagactcgta gaggctgagg cacttaagat ggaaattatt ccaaacccca aggaagttga 240

tggtgtgaaa gtccttcaac tcgaaaccgc

270

<210> 1405
<211> 263
<212> nucleic acid
<213> Zea mays

<400> 1405

tgatgacaca cagaagattg ttgagaagta ttccaactcc aacatcgaaa ttcatacttt 60
caatcagagc cagtatcctc gcattgttac cgaggacttc ttgccacttc ccagcaaagg 120
gaaatctggg aaggatggct ggtatcctcc tggatcatggg gatgtgtttc cttctttgaa 180
taacagcgga aaacttgaca tcttattggc tcagggcaag gagtatgtct ttgttgcaaa 240
ctcagacaac ttgggtgcta tag 263

<210> 1406
<211> 263
<212> nucleic acid
<213> Zea mays

<400> 1406

gcaaggagta tgtctttggt gcaaactcag acaacttggg tgctatagtc gacatcaaga 60
tcctaaacca tctgatcaat aaccagaacg agtactgcat ggaggttact ccaaagacgc 120
tggtgacgt taagggtggc actctcatct cttacgaagg aagagttcag cttttggaga 180
ttgccaagt acccgatgag catgtgaatg aatttaaata aatcgagaag tttaagatat 240
tcaacactaa caacttgtgg gtg 263

<210> 1407
<211> 273
<212> nucleic acid
<213> Zea mays

<400> 1407

aagaagtatt ccaactccaa catcgaaatt catactttca atcagagcca gtatcctcgc 60
attgttaccg aggacttctt gccacttccc agcaaaggga aatctgggaa ggatggctgg 120
tatectctg gtcattggtga tgtgtttccc tctttgaata acagcggaaa acttgacatc 180
ttattggctc agggcaaaga gtatgtcttt gttgcaaact cagacaactg ggggtgctata 240

gaaattattc caaaccccaa ggaagttgat ggtgtgaaag tccttcaact tgaaactgca 240
gctggtgcag ctattcggtt ctttgacaaa gcg 273

<210> 1411
<211> 255
<212> nucleic acid
<213> Zea mays

<400> 1411

gcggacagat cgagtggagc aagatccaga cccctacgga tgaggtggtg gtgccctacg 60
ataccgtcgc gtcgcctccc gaagatctcg aggagacgaa gaagctgctg gataagctcg 120
ttgtgctcaa gcttaacgga gggctcggga cgacatggg ctgcactggg cccaagtctg 180
tcattgaagt ccgcaatggg ttcacattcc ttgaccttat tgtgattcaa attgagtccc 240
tgaacaagaa gtatg 255

<210> 1412
<211> 259
<212> nucleic acid
<213> Zea mays

<400> 1412

agggcaagga gtatgtcttt gttgcaaact cagacaactt ggggtgctata gtcgacatca 60
agatcctaaa ccatctgatc aataaccaga acgagtactg catggagggt actccaaaga 120
cgctggctga cgtaagggt ggcactctca tctcttacga aggaagagtt cagcttttgg 180
agattgccc agtacccgat gagcatgtga atgaatttaa atcaatcgag aagtttaaga 240
tattcaacac taacaactt 259

<210> 1413
<211> 265
<212> nucleic acid
<213> Zea mays

<400> 1413

tcctcgcatt gttaccgagg acttcttgcc acttcccagc aaagggaat ctgggaagga 60
tggtggtat cctcctgggc atggtgatgt gtttccctct ttgaataaca gcggaaaact 120
tgacatctta ttggctcagg gcaaagagta tgtctttggt gcaaactcag acaacttggg 180

tgctatagtc gacatcaaga tcctaaacca tctgatcaat aaccagaacg agtactgcat 240
ggaggttact ccaaagacgc tggct 265

<210> 1414
<211> 278
<212> nucleic acid
<213> Zea mays

<400> 1414

caagtacccg atgagcatgt gaatgaattt aaatcaatcg agaagtttaa gatattcaac 60
actaacaact tgtgggtgaa ccttaaagct atcaagagac tcgtagaggc tgaggcactt 120
aagatggaaa ttattccaaa cccaaggaa gttgatgggtg tgaaagtcct tcaactcgaa 180
accgcagctg gtgcagctat tcggttcttc gacaaagcga ttggaattaa tgttccgcgc 240
tcaaggtttc tcccagtgaa ggctacatct gatctggt 278

<210> 1415
<211> 269
<212> nucleic acid
<213> Zea mays

<400> 1415

gggaaatctg ggaaggatgg ctggtatcct cctggtcacg gtgatgtgtt tccttctttg 60
aataacagcg gaaaacttga catcttattg gctcagggca aggagtatgt ctttgttgca 120
aactcagaca acttgggtgc tatagtcgac atcaagatcc taaaccatct gatcaataac 180
cagaacgagt actgcatgga ggttactcca aagacgctgg ctgacgttaa ggggtggcact 240
ctcatctctt acgaaggaag agttcagct 269

<210> 1416
<211> 293
<212> nucleic acid
<213> Zea mays

<400> 1416

aagctatcaa gagactcgta gaggctgagg cacttaagat ggaaattatt ccaaacccca 60
aggaagttga tgggtgtgaaa gtccttcaac tcgtaaccgc agctggtgca gctattcggt 120
tcttcgacta agcgattgga ataattgtcc ccgcacatag aatctcccag tgaaggctac 180

aacaacttgt ggggtgaacct taaagctatc aagagactcg tagaggctga ggcacttaag 180
 atggaaatta ttccaaaccc caaggaagtt gatgggtgtga aagtccttca actcgaaacc 240
 gcagctgggtg cagctattc 259

<210> 1420
 <211> 252
 <212> nucleic acid
 <213> Zea mays

<400> 1420

ctttacacct tggttgatgg ctttgtcatc cgcaacccat ccagagcgaa tccagctaac 60
 ccttcaattg agcttggacc tgagttcaag aaggttgcca atttccttgc tcggttcaag 120
 tccatcccca gcatagttga gcttgacagc ttgaagggtt ctggtgatgt ctggtttggc 180
 tctggaatta cactcaaggg caaggtgaca attatcgcca agcctggagt gaagttggag 240
 attccagatg ga 252

<210> 1421
 <211> 302
 <212> nucleic acid
 <213> Zea mays

<400> 1421

cgtttcgaag cctcgcgagc cccgacgatg gccaccaccg cgggtgctcgt cgacgagaag 60
 ctcgataagc ttcgcgccga ggtcgccaag ctcgaccaga tcagcgagaa cgagaagtcc 120
 gggttcatca gctcgtgtc acggtacctc agtggggagg cgacagatc gagtggagca 180
 agatccagac ccctacggat gacgtggtgg tgccctacga taccgtcgcg tcgcctcccg 240
 aagatctcga ggagacgaag aagctgctgg ataagctcgt tgtgctcaag cttaacggag 300
 gg 302

<210> 1422
 <211> 249
 <212> nucleic acid
 <213> Zea mays

<400> 1422

cggtctgagt caaagggat ctgggctctg gttgaaagta tgaatttcga tgttggagtt 60

ggaataacttc tcaacaatct tctgtgtgtc atcatgggtg ttgaaagagt tcatcagaag 120
 taaagggaca ttgcatccat acttcttggt cagggactca atttgaatca caataaggtc 180
 aaggaatgtg aaccattgc ggacttcaat gacagacttg ggcccagtgc agcccatggt 240
 cgtcccagag 249

<210> 1423
 <211> 283
 <212> nucleic acid
 <213> Zea mays

<400> 1423

ccttaagata ttcaagacta acaacttggt ggtgaacctt aaagctatca agagactcgt 60
 agacgctgag gcacttaaga tggcgattat tccaaacccc aaggaagttg atggtgtgaa 120
 agtccttcaa ctcgaaaccg cagctgggtgc agctattcgg ttcttcgaca aagcgattgg 180
 aattaatggt ccccgctcaa ggtttctccc agtgaaggct acatctgacg tgttgcttgt 240
 gcagtctgat ctttacagct tggttgatgg ctttgtcatc cgc 283

<210> 1424
 <211> 270
 <212> nucleic acid
 <213> Zea mays

<400> 1424

agcgaatcca gctaaccctt caattgagct tggacctgag ttcaagaagg ttgccaattt 60
 ccttgctcgg ttcaagtcca tcccagcat agttgagctt gacagcttga aggtttctgg 120
 tgatgtctgg tttggctctg gaattacact caagggcaag gtgacaatta tcgccaagcc 180
 tggagtgaag ttggagattc cagatggaga cgtacttgag aacaaggatg tcaatggccc 240
 tgaggatctt taagcaatgt ttgtcatcac 270

<210> 1425
 <211> 258
 <212> nucleic acid
 <213> Zea mays

<400> 1425

tggagattgc ccaagtacct gatgagcatg tgaatgagtt taaatcaatc gagaagttta 60

agatattcaa cactaacaac ttgtgggtga accttaaagc tgtcaagaga ctagtagagg 120
 ctgaggcact taagatggaa attattccaa accccaagga agttgatggt gtgaaagtcc 180
 ttcaacttga aactgcagct ggtgcagcta ttcgtttctt tgacaaagcg attggagtta 240
 atgttccccg ctcaagat 258

<210> 1426
 <211> 307
 <212> nucleic acid
 <213> Zea mays

<400> 1426
 gcagcttaaa gctatcaaga gactcgtaga ggctgaggca cttaagatgg aaattattcc 60
 aaacccaag gaagttgatg gtgtgaaagt ccttcaactc gaaaccgcag ctggtgcagc 120
 tattcggttc ttcgacaaag cgattggaat taatgttccc cgctcaaggt ttctcccagt 180
 gaaggctaca tctgatctgt tgcttggtgca gtctgatctt tacaccttgg ttgatggctt 240
 tgtcatccgc aacccatcca gagcgaatcc agctaaccct tcaattgagc ttggagctga 300
 gttcaag 307

<210> 1427
 <211> 230
 <212> nucleic acid
 <213> Zea mays

<400> 1427
 ctacatctga tctgttgctt gtgcagtctg atctttacac cttggttgat ggctttgtca 60
 tccgcaaccc atccagagcg aatccagcta acccttcaat tgagcttgga cctgagttca 120
 agaaggttgc caatttcctt gctcggttca agtccatccc cagcatagtt gagcttgaca 180
 gcttgaaggt ttctgggtgat gtctggtttg gctctggaat tacactcaag 230

<210> 1428
 <211> 271
 <212> nucleic acid
 <213> Zea mays

<400> 1428
 ggcacttaag atggaaatta ttccaaaccc caaggaagtt gatgggtgta aagtccttca 60

actcgaaacc gcagctggtg cagctattcg gttcttcgac aaagcgattg gaattaatgt 120
 tccccgctca aggtttctcc cagtgaaggc tacatctgat ctggttgcttg tgcagtctga 180
 tctttacacc ttggttgatg gctttgtcat ccgcaacca tccagagcga atccagctaa 240
 cccttcaatt gagcttggac ctgagttcaa g 271

<210> 1429
 <211> 243
 <212> nucleic acid
 <213> Zea mays

<400> 1429
 cccacgcgtc cgggtgttcc ttcggtgaat aacagcggaa aacttgacat cttattggct 60
 cagggcaagg agtatgtctt tgttgcaaac tcagacaact tgggtgctat agtcgacatc 120
 aagatcctaa accatctgat caataaccag aacgagtact gcatggagggt tactccaaag 180
 acgctggctg acgttaaggg tggcactctc atctcttacg aaggaagagt tcagcttttg 240
 gag 243

<210> 1430
 <211> 317
 <212> nucleic acid
 <213> Zea mays

<400> 1430
 ggcacacaca ccacaccaca cctcctcgct tccactccgc tcgtctgaca tctcgtcccg 60
 tcctttcggt tcgaagcctc gcgagccccg acgatggcca ccgccgcggt gtcggtcgac 120
 gagaagctcg acaagcttcg cgccgaggtc gccaaagctcg accagatcag cgagaacgag 180
 aagtccgggt tcatcagcct cgtgtcacgc tacctcagtg gggaagcgga gcagatcgag 240
 tggagcaaga tccagacccc tacggatgag gtggtggtgc cctacgatac cgtcgcgctc 300
 cctcccgaag atctcga 317

<210> 1431
 <211> 242
 <212> nucleic acid
 <213> Zea mays

<400> 1431

cttcgacaaa gcgattggaa ttaatgttcc ccgctcaagg tttctcccag tgaaggctac 60
 atctgatctg ttgcttgtgc agtctgatct ttacaccttg gttgatggct ttgtcatccg 120
 caacccatcc agagcgaatc cagctaacct ttcaattgag cttggacctg agttcaagaa 180
 ggttgccaat ttccttgctc ggttcaagtc catccccagc atagttgagc ttgacagctt 240
 ga 242

<210> 1432
 <211> 214
 <212> nucleic acid
 <213> Zea mays

<400> 1432
 aaggacttct tgccacttcc aagcaaaggg aaatctggga aggatggctg gtatcctcca 60
 ggccatggtg atgtgttccc ctctttgaat aacagtggaa aactcgacat cttattggct 120
 cagggcaagg agtatgtctt cgttgctaac tcagacaact tgggtgctat agtcgacatc 180
 aagatcctga accatctgat caataaccag aatg 214

<210> 1433
 <211> 318
 <212> nucleic acid
 <213> Zea mays

<400> 1433
 aggcagacgg cacacacacc acaccacacc tctctgcttc cactccgctc gtctgacatc 60
 tcgtcccgtc cttctgtttc gaagcctcgc gagccccgac gatggccacc gccgcggtgt 120
 cggtcgacga gaagctcgac aagcttcgcg ccgaggtcgc caagctcgac cagatcagcg 180
 agaacgagaa gtccgggttc atcagcctcg tgtcacgcta cctcagtggg gaagcggaca 240
 gatcgagtgg agcaagatcc agaccctac ggatgaggtg gtggtgccct acgataccgt 300
 cgcgtcgctt cccgaaga 318

<210> 1434
 <211> 234
 <212> nucleic acid
 <213> Zea mays

<400> 1434

cacaccacac ctctctcgctt gcactccgct cgtctgacat ctctgtcccgt cctttcgttt 60
 cgaagcctcg cgagccccga cgatggccac caccgcggtg tcggtcgacg agaagctcga 120
 taagcttcgc gccgaggtcg ccaagctcga ccagatcagc gagaacgaga agtccgggtt 180
 catcagcctc gtgtcacggt acctcagtgg ggaggcggac agatcgagtg gagcaagatc 240
 cagacccta cgatgaggt ggtggtgcc tacgatacca tcggtcgcc tccgaagatc 300
 tcgaggagac ga 312

<210> 1438
 <211> 225
 <212> nucleic acid
 <213> Zea mays

<400> 1438
 gcacgagggg aaatctggga aggatggctg gtatctctct ggtcatggtg atgtgtttcc 60
 ttctttgaat aacagcggaa aacttgacat cttattggct cagggcaagg agtatgtctt 120
 tgttgcaaac tcagacaact tgggtgctat agtcgacatc aagatcctaa accatctgat 180
 caataaccag aacgagtact gcatggaggt tactccaaag acgct 225

<210> 1439
 <211> 230
 <212> nucleic acid
 <213> Zea mays

<400> 1439
 cccacgcgtc cgggctggta tctctctggt catggtgatg tgtttccttc tttgaataac 60
 agcggaaaac ttgacatctt attggctcat ggcaaggagt atgtctttgt tgcaaactca 120
 gacaacttgg gtgctatagt cgacatcaag atcctaaacc atctgatcaa taaccagaac 180
 gagtactgca tggaggttac tccaaagacg ctggctgacg ttaagggtgg 230

<210> 1440
 <211> 309
 <212> nucleic acid
 <213> Zea mays

<400> 1440
 cacacaccac accacacctc ctgcttcca ctccgctcgt ctgacatctc gtcccgtcct 60

<400> 1443
gaacaagaag tatggatgca atgtcccttt acttctgatg aactctttca acacccatga 60
tgacacacag aagattgttg agaagtattc caactccaac atcgaatttc atactttcaa 120
tcagagccag tatectcgca ttgttaccga ggacttcttg ccacttccca gcaaagggaa 180
atctgggaag gatggctggt atc 203

<210> 1444
<211> 287
<212> nucleic acid
<213> Zea mays

<400> 1444
gagttcaaga aggttgccaa tttccttggc cggttcaagt ccatccccag catagttgag 60
cttgacagct tgaaggtttc tggatgatgc tggtttggct ctggaattac actcaagggc 120
aaggtgacaa ttatcgccaa gcctggagtg aagttggaga ttccagatgg agacgtactt 180
gagaacaagg atgtcaatgg ccttgaggat ctttaagcaa tgtttatcat caccagtttt 240
cccaaggaca tgtcacagga actgccaagc ctaatcactc ctactga 287

<210> 1445
<211> 239
<212> nucleic acid
<213> Zea mays

<400> 1445
cccacgcgtc cgcccacgcg tccgacaact tgtgggtgaa ccttaaagct gtcaagagac 60
tagtagaggc tgaggcactt aagatggaaa ttattccaaa cccaaggaa gttgatggtg 120
tgaaagtcc tcaacttgaa actgcagctg gtgcagctat tcgtttcttt gacaaagcga 180
ttggaattaa tgttccccgc tcaagatttc tcccggtgaa ggctacatct gatttattg 239

<210> 1446
<211> 269
<212> nucleic acid
<213> Zea mays

<400> 1446
cagcgcgcgt acgtgagcgc gcggttgggc tcgagcgacc ttagagctat caagagagtc 60

aatcaccgcc aagtctggag tgaagttgga gattccagac ggagctgtat ttgaaaacaa 180
 ggatgtcaat ggccctgagg atctttaagc tatgcttgcc gtcaccagtt tttcccaagg 240
 acatgtcaat aggagctgcc aacccaaatc actcccgtcg agctctacct ttt 293

<210> 1450
 <211> 311
 <212> nucleic acid
 <213> Zea mays

<400> 1450

caccacacct cctcgtttgc actccgctcg tctgacatct cgtcacgtcc tttcgtttcg 60
 aagcctcgcg agccccgacg atggccacca ccgcggtgtc ggtcgacgag aagctcgata 120
 agcttcgcg cgaggctgcc aagctcgacc agatcagcga gaacgagaag tccgggttca 180
 tcagcctcgt gtcacggtac ctcaagtggg aggcggacag atcgagtgga gcaagatcca 240
 gaccctacg gatgaggtgg tggcgcccta cgataccgtc gcgtacgctc ccgaagatct 300
 cgaggagacg a 311

<210> 1451
 <211> 277
 <212> nucleic acid
 <213> Zea mays

<400> 1451

cacaccacac ctctcgttt gcactccgt cgtctgacat ctcgccccgt cctttcgttt 60
 cgaagcctcg cgagccccga cgatggccac caccgcggtg tcggtcgacg agaagctcga 120
 taagcttcgc gccgaggtcg ccaagctcga ccagatcagc gagaacgaga agtccgggtt 180
 catcagcctc gtgtcacggt acctcagtgg ggaggcggac agatcgagtg gagcaagatc 240
 cagacccta cggatgaggt ggtggtgccc tacgata 277

<210> 1452
 <211> 220
 <212> nucleic acid
 <213> Zea mays

<400> 1452

ccaagtacct gatgagcatg tgaatgagtt taaatcaatc gagaagttta agatattcaa 60

gcctcgtgtc acggtacctc agtggggagg cggacagatc gaggaggagca agatccagac 240
ccctacggat gacgtggtgg tgccctaaga taccgtcgcg tcgcctcccg aaga 294

<210> 1456
<211> 307
<212> nucleic acid
<213> Zea mays

<400> 1456

accacacaac ctctgttcca caccgctcgt ctgacatatc gtcccgtcct ttcgttttga 60
agcctcgaga gcaccgacga tagccaccgc cgcggtgtcg gtcgacgaga agctcgacaa 120
gtttcgcgcc gaggtcgcca agctcgacca gatcagcgag aacgagaaga ccgggttcat 180
cagcctcgtg tcacgttacc tcagtaggga agcggagcag atcgagtgga gcaagatcca 240
gacacctacg gatgaggtgg tgggtgcccta cgataccgtc gcgtcgctc ccgaagatct 300
cgaggag 307

<210> 1457
<211> 270
<212> nucleic acid
<213> Zea mays

<400> 1457

cggacgctgg gttctgaggc tcgcgaaccc cgacgatggc cgccaccgag gtgtcggtcg 60
acgagaagct cgacaagctt cgcgccgagg tcgcaaact caaccagatc agcgagaacg 120
agaagtccgg gttcatcagc ctctgtgtcac gttacctcag tggggaggcg gacagatcga 180
gtggagcaag atccagaccc cgaccgatga ggtggtggtg ccgtacgata tcctcgcgtc 240
acctactgaa gatctcgagg agacgaagaa 270

<210> 1458
<211> 265
<212> nucleic acid
<213> Zea mays

<400> 1458

cagccccctc tcgtctgcac tccgtctgac tgacatctcc tcccgtcctt tcgttttctga 60
ggctcgcgaa ccccgacgat ggccgccacc gcggtgtcgg tcgacgagaa gtcgacaaag 120

ttcgaagcct cgcgagcccc gacgatggcc accaccgcgg tgcgggtcga cgagaagctc 120
gataagcttc gcgccgaggt cgccaagctc gaccagatca gcgagaacga gaagtccggg 180
ttcatcagcc tcgtgtcacg gtacctcagt ggggagggcg acagatcgag tggagcaaga 240
tccagacccc tacggatgag gtggtggtgc cctacgatac cgtcgcgtcg cctcccgaag 300
atctcgagga gacg 314

<210> 1462
<211> 238
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (193)
<223>

<400> 1462
gttcgtctga catctcctcc cgtcctttcc tttctgaggc tcgcgaaccc cgacaatggc 60
cgcaaccgcg gtgtcggtcg acgagaagct cgacaagctt cgcgccgagg tcgccaaact 120
cagccagatc agcgagaacg agaaggccgg gttcatcagc ctcgtgtcac gctacctcag 180
tggggagggcg ganagatcga gtggagcaag atccagaccc cgaccgatga ggtagtgg 238

<210> 1463
<211> 289
<212> nucleic acid
<213> Zea mays

<400> 1463
acacaccaca ccacacctcc tcgcttgca cccgctcgtc tgacatctcg tcccgtcctt 60
tcgtttcgaa gcctcgcgag caccgacgat ggccaccacc gcggtgtcgg tcgacgagaa 120
gctcgataag ctctcgcgcc aggtcgccaa gctcgaccag atcagcgaga acgacaactc 180
cgggttcacg agcctcgtgt caccgtacct cagtggggag gcggacagat cgagtggagc 240
aagatccaga cccctaagga tgaggtggtg gtgccctacg ataccgtcg 289

<210> 1464
<211> 299
<212> nucleic acid

<213> Zea mays

<400> 1464

gcagtctaac agcaccacct cctcgctcgc actccgttcg tctgaactct cctcccgtcc 60
 ttctctttct gaggtctcgc aaccccgaca atggccgcaa ccgcggtgtc ggctcgacgag 120
 aagctcgaca agcttcgcgc cgaggtcgcc aaactcagcc agatcagcga gaacgagaag 180
 gccgggttca tcagcctcgt gtcacgtac ctcagtgggg aggcggacag atcgagtggg 240
 gcaagatcca gaccccgacc gatgaggtag tgggtgccga cgataccctc acgtcgcct 299

<210> 1465

<211> 257

<212> nucleic acid

<213> Zea mays

<400> 1465

gcacccccctc ctcgctcgca ctccgctcgt ctgacatctc ctcccgtcct ttcttttctg 60
 aggtctcgga accccgacga tggccgccac ccgcggtgtc gtcgacgaga agctcgacaa 120
 gcttcgcgcc gaggtcgcca aactcaacca gatcagcgag aacgagaagt ccgggttcat 180
 cagcctcgtg tcacgttacc tcagtgggga ggcggacaga tcgagtggag caagatccag 240
 accccgaccg atgaggt 257

<210> 1466

<211> 188

<212> nucleic acid

<213> Zea mays

<400> 1466

ggaagttgat ggtgtgaaag tccttcaact cgaaaccgca gctggtgcag ctattcgggt 60
 cttcgacaaa gcgattggaa ttaatgttcc ccgctcaagg tttctcccag tgaaggctac 120
 atctgatctg ttgcttgtgc agtctgatct ttacaccttg gttgatggct ttgtcatccg 180
 caacccat 188

<210> 1467

<211> 289

<212> nucleic acid

<213> Zea mays

<400> 1467

cggcacacac accacaccac acctcctcgc ttccactccg ctctgtctgac atctcgtccc 60

gtccttttcgt ttcgaagcct cgcgagcccc gacgatggcc accgccgcgg tgcggtcga 120

cgagaagctc gacaagcttc gcgccgaggt cgccaagctc gaccagatca gcgagaacga 180

gaagtccggg ttcattcagcc tcgtgtcacg ctacctcagt ggggaagcgg acagatcgag 240

tggagcaaga tccagacccc tacggatgag gtggtggtgc ctacgatac 289

<210> 1468

<211> 275

<212> nucleic acid

<213> Zea mays

<400> 1468

acacggcaca cacaccacac cacacctcct cgcttccact ccgctcgtct gacatctcgt 60

cccgtccttt cctttcgaag cctcgcgagc cccgacgatg gccaccgccg cgggtgtcgg 120

cgacgagaag ctgcacaagc ttcgcgccga ggctcgccaag ctcgaccaga tcagcgagaa 180

cgagacgtcc gggttcatca gcctcgtgtc ccgtacctc agtggggaag cggacagatc 240

gagtggagca agatccagac ccctacggat gaggt 275

<210> 1469

<211> 315

<212> nucleic acid

<213> Zea mays

<400> 1469

accacaccac acctcctcgc ttgcacaccg ctctgtctgac atctcgtccc gtccttttcgt 60

ttcgaagcct cgcgagcacc gacgatagcc accaccgcgg tgcggtcga cgagaagctc 120

gataagcttc gcgccgaggt cgccaagctc gaccagatca gcgagaacga gaagaccggg 180

ttcatcagcc tcgtgtcacg gtacctcagt acggaggcgg agcagatcga gtagagcaag 240

atccagactc ctacggatga ggtggtggtg ccctacgata cagtcgcgtc gcctcccga 300

gatctcgagg agacg 315

<210> 1470

<211> 250

<212> nucleic acid

<213> Zea mays

<400> 1470

aggcacacac accacaccac acctcctcgc ttccacaccg ctctgtctgac atctcgtccc 60
gtccttttcgt ttcgaagcct cgcgagcccc gacgatggcc accgccgcgg tgctcggtcga 120
cgagaagctc gacaagcttc gcgccgaggt cgccaagctc gaccagatca gcgagaacga 180
gaagtccggg ttcattcagcc tcgtgtcacg ctacctcagt ggggaagcgg acagatcgag 240
tggagaagat 250

<210> 1471

<211> 255

<212> nucleic acid

<213> Zea mays

<400> 1471

cacacacacc acaccacacc tcctcgtctc cactccgctc gtctgacatc tcgtcccgtc 60
ctttcgtttc gaagcctcgc gagccccgac gatggccacc gccgcggtgt cggtcgacga 120
gaagctcgac aagcttcgcg ccgaggtcgc caagctcgac cagatcagcg agaacgagaa 180
gtccgggttc atcagcctcg tgtcacgcta cctcagtggg gaagcggaca gatcgagtgg 240
agcaagatcc agacc 255

<210> 1472

<211> 276

<212> nucleic acid

<213> Zea mays

<400> 1472

atacggcaca cacaccacac cacacctcct cgcttccact ccgctcgtct gacatctcgt 60
cccgtccttt cgtttcgaag cctcgcgagc cccgacgatg gccaccgccg cgggtgctcgt 120
cgacgagaag ctgcacaagc ttcgcgccga ggctcgccaag ctgcaccaga tcagcgagaa 180
cgagaagtcc gggttcatca gcctcgtgtc acgctacctc agtggggaag cggacagatc 240
gagtggagca agatccagac ccctacggat gaggtg 276

<210> 1473

<211> 256

<212> nucleic acid

<213> Zea mays

<400> 1473

ctccccctcc tcgctcgac tccgctcgtc tgacatctcc tcccgctcctt tcctttctga 60
 ggctcgcgaa ccccgacgat ggccgccacc gcggtgctcg tcgacgagaa gctcgacaag 120
 cttcgcgccg aggtcgccaa actcaaccag atcagcgaga acgagaagtc cgggttcac 180
 agcctcgtgt cacgttacct cagtggggag acggagcaga tcgagtgaga ccagatccag 240
 accccgacgg ataagg 256

<210> 1474

<211> 258

<212> nucleic acid

<213> Zea mays

<400> 1474

cggacgcgtg gcggacgcgt gggcggacgc gtgggcggac gcgtgggcag cggaaaactt 60
 gacatcttat aggtcaggg caatgagtat gtctttgttg caaactcaga caacttgggt 120
 gctatagtcg acatcaagat cctaaaccat ctgatcaata accagaacga gtactgcatg 180
 gaggttactc caaagacgct ggctgacgtt aagggtggca ctctcatctc ttacgaagga 240
 agagttcagc ttttgag 258

<210> 1475

<211> 292

<212> nucleic acid

<213> Zea mays

<400> 1475

cacacacacc acaccacacc tcctcgcttc cactccgctc gtctgacatc tcgtcgcgtc 60
 ctttcgtttc gaagcctcgc gagccccgac gatggccacc gccgcggtgt cggtcgacga 120
 gaagctcgac aagctcgcgc cgaggtcgcc aagctcgacc agagtagcga gaacgagaag 180
 tccgggttca tcagcctcgt gtcacgtac ctcagtgggg aagcggacag atcgagtgga 240
 gcaagatcca gaccctacgg atgaggtggt ggtgcctacg ataccgtcgc gt 292

<210> 1476

<211> 308

<212> nucleic acid

<213> Zea mays

<400> 1476

cactcgagcg aattcggtc gaggtccatc cccagcatag atgagcttga cagctacaac 60
 cgttctggtg atgtatggat tggctctgga attacactca agggcaaggt gacaattatc 120
 gccaaagcctg gagtgaagtt ggagattcca gatggagacg tacttgagaa caaggatgtc 180
 aatggccctg aggatcttta agcaatgttt gtcacacca gtttttccca aggacatgtc 240
 acaggaactg ccaagcctag tcaactctac tgagctctat attttgtaat tttcatgtgc 300
 attccgat 308

<210> 1477

<211> 189

<212> nucleic acid

<213> Zea mays

<400> 1477

agcttgaagg tttctggtga tgtctggttt ggttctggaa ttacgctcaa gggcaaggtg 60
 acaatcaccg ccaagtctgg agtgaagttg gagattccag acggagctgt atttgaaaac 120
 aaggatgtca atggccctga ggatctttaa gctatgcttg ccgtcaccag tttttcccaa 180
 ggacatgtc 189

<210> 1478

<211> 158

<212> nucleic acid

<213> Zea mays

<400> 1478

tgaagtttaa gatattcaac actaacaact tgtgggtgaa ccttaaagct gtcaagagac 60
 tagtagaggc tgaggcactt aagatggaaa ttattccaaa cccaaggaa gttgatgggtg 120
 tgaaagtccg tcaacttgaa actgcagctg gtgcagct 158

<210> 1479

<211> 245

<212> nucleic acid

<213> Zea mays

<400> 1479

cccacgcgtc cgccccacgcg tccgacacac cacaccacac ctctctgctt ccaactccgct 60
 cgtctgacat ctctgtcccgt cctttctgttt cgaagcctcg cgagccccga cgatggccac 120
 cgccgcggtg tccgtcgacg agaagctcga caagcttcgc gccgaggtcg ccaagctcga 180
 ccagatcagc gagaacgaga agtccgggtt catcagcctc gtgtcacgct acctcagtgg 240
 ggaag 245

<210> 1480
 <211> 271
 <212> nucleic acid
 <213> Zea mays

<400> 1480

agcttgaagg tttctggtga tgtctggttt ggttctggaa ttacgctcaa gggcaagggtg 60
 acaatcaccg ccaagtctgg agtgaagttg gagattccag acggaactgt atttgaaaac 120
 aaggatgtca atggccctga ggatctttaa gctatgcttg ccgtcaccag tttttcccaa 180
 ggacatgtca ataggagctg ccaacccaaa tcaactccgc tgagctctac cttttgtaat 240
 tctctgtccg ttccgcttcc gctgtgaggg t 271

<210> 1481
 <211> 247
 <212> nucleic acid
 <213> Zea mays

<400> 1481

cgcttgaagg tttctggtga tgtctggttt ggttctggaa ttacgctcaa gggcaagggtg 60
 acaatcaccg ccaagtctgg agtgaagttg gagattccag acggagctgt atttgaaaac 120
 aaggatgtca atggccctga ggatctttaa gctatgcttg ccgtcaccag tttttcccaa 180
 ggacatgtca ataggagctg ccaacccaaa tcaactccgc tgagctctac cttttgtaat 240
 tctctgtg 247

<210> 1482
 <211> 225
 <212> nucleic acid
 <213> Zea mays

<400> 1482

CCCTGCGGTG

acacaccaca ccacacctcc tcgcttccac tccgctcgtc tgacatctcg tcccgctcctt 60
 tcgtttcgaa gcctcgcgag ccccgacgat ggccaccgcc gcggtgctcg tcgacgagaa 120
 gctcgacaag ctctcgcgcg aggtcgccaa gctcgaccag atcagcgaga acgagaagtc 180
 cgggttcctc agcctcgtgt cacgctacct cagtggggaa gcgga 225

<210> 1483
 <211> 256
 <212> nucleic acid
 <213> Zea mays

<400> 1483

cggcacacac accacaccac acctcctcgc ttccactcgc ctggtctgac atctcgtccc 60
 gtcctttcct ttctgaagct cgcgagcccc gacgatggcc accgcgcgcg tgctcggtcga 120
 cgagaagctc gacaagcacc cgcgcgaggtc gccaaagctcg accagatcag cgagaacgag 180
 aagtccgggt tcatcagcct cgtgtcacgc tacctcagtg gggaagcgga cagatcgagt 240
 ggagcaagat ccgacc 256

<210> 1484
 <211> 237
 <212> nucleic acid
 <213> Zea mays

<400> 1484

gcgggcagtc taacagcacc cctcctcgc tcgcaactcgc ttggtctgac atctcctccc 60
 gtcctttcct ttctgaggct cgcgaacccc gacaatggcc gcaaccgcg tgctcggtcga 120
 cgagaagctc gacaagcttc gcgcgcgaggt cgccaaactc agccagatca gcgagaacga 180
 gaaggccggg ttcatcagcc tcgtgtcacg ctacctcagt gggggagcgg gacagat 237

<210> 1485
 <211> 223
 <212> nucleic acid
 <213> Zea mays

<400> 1485

cacctcctcg cttgcaactcc gctcgtctga catctcgtcc cgtcctttcg tttcgaagcc 60
 tcgcgagccc cgacgatggc caccaccgcg gtgtcggtcg acgagaagct cgataagctt 120

cgcgccgagg tcgccaagct cgaccagatc agcgagaacg agaagtccgg gttcatcagc 180
ctcgtgtcac ggtacctcag tggggaggcg gacagatcga gtg 223

<210> 1486
<211> 141
<212> nucleic acid
<213> Zea mays

<400> 1486

agctgaggca cttaagatgg aaattattcc aaacccaagg aagttgatgg tgtgaaagtc 60
cttcaacttg aaactgcagc tgggtgcagct attcgtttct ttgacaaagc gattggaatt 120
aatgttcccc gctcaagatt t 141

<210> 1487
<211> 257
<212> nucleic acid
<213> Zea mays

<400> 1487

cggcacacac accacaccac acctcctcgc ttccactccg ctcgtctgac atctcgtccc 60
gtcctttcgt ttcgaagcct cgcgagcccc gacgatggcc accgccgcgg tgtcggtcga 120
cgagaagctc gacaagcttc gcgccgaggt cgccaagctc gaccagatca gcgagaacga 180
gaagtccggg ttcatcagcc tcgtgtcacg ctacctcagt ggggaagcgg acagatcgag 240
tggagcaaga tccagac 257

<210> 1488
<211> 143
<212> nucleic acid
<213> Zea mays

<400> 1488

tggtgatgtc tggtttggct ctggaattac actcaagggc aaggtgacaa ttatcgccaa 60
gcctggagtg aagttggaga ttccagatgg agacgtactt gagaacaagg atgtcaatgg 120
ccctgaggat cttaagcaa tgt 143

<210> 1489
<211> 200
<212> nucleic acid

<213> Zea mays
 <400> 1489
 ccacaccaca cctcctcgtt tccactccgc tcgtctgaca tctcgtcccg tcctttcgtt 60
 tcgaagcctc gcgagccccg acgatggcca ccgccgcggt gtcggtcgac gagaagctcg 120
 acaagcttcg cgccgaggtc gccaaagctcg accagatcag cgagaacgag aagtccgggt 180
 tcatacagct cgtgtcacgc 200

<210> 1490
 <211> 272
 <212> nucleic acid
 <213> Zea mays

<400> 1490
 agacggcaca cacaccacac cacacctcct cgcttccact ccgctcgtct gatctctcgt 60
 cccgtccttt cgtttcgaag cctcgcgagc cccgacgatg gccaccgccg cgggtgtcgat 120
 cgacgagaag ctcgacaagc ttgcgcgccg ggtcgccaag ctcgaccaga tcagcgagaa 180
 cgagaagtcc gggttcatca gcctcgtgtc acgtacctc agtggggaag cggacagatc 240
 gagtggagca agatccagac ccctacggat ga 272

<210> 1491
 <211> 149
 <212> nucleic acid
 <213> Zea mays

<400> 1491
 ctttgttgca aactcagaca acttgggtgc tatagtcgac aacaagatcc taaaccatct 60
 gatcaataac cagaacgagt attgcatgga gggtactcca aagacgctgg ctgacgttaa 120
 ggggtggcact ctcactcttt acgaaggaa 149

<210> 1492
 <211> 189
 <212> nucleic acid
 <213> Zea mays

<400> 1492
 atcgcgtcct ttcttttctg aggtcgcga accccgacaa tggccgcaac cgcggtgtcg 60

gtcgacgaga agctcgacaa gcttcgcgcc gaggtcgcca aactcagcca gatcagcgag 120
 aacgagaagg ccgggttcat cagcctcgtg tcacgctacc tcagtgggga ggcggacaga 180
 tcgagtgga 189

<210> 1493
 <211> 295
 <212> nucleic acid
 <213> Zea mays

<400> 1493

caccacacca cacctcctcg cttgcaactcc gctcgtctga catctcgtcc cgtcctttcg 60
 tttcgaagcc tcgcgagccc cgacgattgc caccaccgcg gtgtcggtcg acgagaagct 120
 cgatgagctt cgcgccgagg tcgccaagct cgaccagatc agcgagaacg agaagtccgg 180
 gttcatcagc ctcgtgtcac ggtacctcag tggggaggcg gacagatcga gtggagcaag 240
 atccagaccc ctacggatga ggtgggtgtg cgctacgata ccgtcgcgtc gcctc 295

<210> 1494
 <211> 253
 <212> nucleic acid
 <213> Zea mays

<400> 1494

ctggtttggc tctggaatta cactcaaggg caaggtgaca attatcgcca agcctggagt 60
 gaagttggag attccagatg gagacgtact tgagaacaag gatgtcaatg gccctgagga 120
 tctttaagca atgtttatca tcaccagttt tcccaaggac atgtcacagg aactgccaaag 180
 cctaatact cctactgagc tctatatattt gtaattttca tgtgcattcc gattccgctg 240
 tgagggtcat gtg 253

<210> 1495
 <211> 286
 <212> nucleic acid
 <213> Zea mays

<400> 1495

acgccccgac cacggtccgc gacgctgggc gaccgtggcg gcagacggca cacacaccac 60
 accacacctc ctcgcttcca ctcacgctcg totaccatct cgtcccgctc tttcgtttcg 120

aagcctcgcg agccccgacg atggccaccg ccgcggtgtc ggtcgacgag aagctcgaca 180
 agcttcgcgc cgaggctgcc aagctcgacc agatcagcga gaacgagaag tccgggttca 240
 tcagcctcgt gtcacgctac ctcaagtgggg aagcggacag atcgag 286

<210> 1496
 <211> 116
 <212> nucleic acid
 <213> Zea mays

<400> 1496

gtggtgccct acgataccgt cgcgtcgctt cccgaagatc tcgaggagac gaagaagctg 60
 ctggataagc tcgttgtgct caagcttaac ggagggctcc ggaacgacca tgggct 116

<210> 1497
 <211> 237
 <212> nucleic acid
 <213> Zea mays

<400> 1497

cggcagacgg cacacacacc acaccacacc tcctcgcttc cactccgctc gtctgacatc 60
 tcgtcccgtc ctttcgtttc gaagcctcgc gagccccgac gatggccacc gccgcggtgt 120
 cggtcgacga gaagctcgac aagcttcgcg ccgaggctgc caagctcgac cagatcagcg 180
 agaacgagaa gtccgggttc atcagcctcg tgtcacgata tctcagtgga aacgcgg 237

<210> 1498
 <211> 150
 <212> nucleic acid
 <213> Zea mays

<400> 1498

tttcgaagcc tcgcgagcac cgacgatagc caccaacgcg gtgtcggtcg acgagaagct 60
 cgataagctt cgcgccgagg tcgccaaagt cgaccagatc agcgagaacg agaatttcgg 120
 gttcatcagc ctctgtgtcac ggtacctcag 150

<210> 1499
 <211> 116
 <212> nucleic acid
 <213> Zea mays

ttcatacttt caatcagagc cagtatcctc gcattgttac cgaggacttc ttgccacttc 180
 caagcaaagg gaaatctggg aaggatggct ggtatcctcc aggccatggt gatgtgttcc 240
 cctctttgaa taacagtgga aaactcgaca tcttattggc tcaaggcaag gagtatggtc 300
 ttcgtgctaa ctcagacaac ttgggtgcta tagtcgacat caagatcctg aaccatctga 360
 tcaataacca gaatgaatac tgcattggagg ttactccaaa aacattggct gatgtttaaag 420
 gcggt 425

<210> 1506
 <211> 414
 <212> nucleic acid
 <213> Zea mays

<400> 1506

gggtgaacct taaagctatc aagagactcg tagaggctga ggcacttaag atggaaatta 60
 ttccaaaccc caaggaagtt gatggtgtga aagtccttca actcgaaacc gcagctgggtg 120
 cagctattcg gttcttcgac aaagcgattg gaattaatgt tccccgctca aggtttctcc 180
 cagtgaaggc tacatctgat ctgttgcttg tgcagtctga tctttacacc ttggttgatg 240
 gctttgtcat ccgcaaccca tccagagcga atccagctaa cccttcaatt gagcttggac 300
 ctgagttcaa gaaggttgcc aatttccttg ctcggttcaa gtccatcccc agcatagttg 360
 agcttgacag cttgaagggt tctggtgatg tctggtttgg ctctggaatt acac 414

<210> 1507
 <211> 441
 <212> nucleic acid
 <213> Zea mays

<400> 1507

cccacgcgtc cggaggcact taagatggaa attattccaa accccaagga agttgatggg 60
 gtgaaagtcc ttcaacttga aactgcagct ggtgcagcta ttcgtttctt tgacaaagcg 120
 attggaatta atgttccccg ctcaagattt ctcccggtga aggtacatc tgatttattg 180
 cttgtgcagt ctgatcttta caccttggtt gatggctttg tcatccgcaa tccatccaga 240
 gcgaatccag ctaacccttc gattgagctt ggacctgagt tcaagaagggt tgccaatttc 300
 cttgctcggg tcaagtccat ccccgacatc gtcgagcttg acagcttgaa ggtttctggt 360

gatgtctggt ttggttctgg aattacgctc aagggcaagg tgacaatcac cgccaagtct 420
 ggagtgaagt tggaggttcc a 441

<210> 1508
 <211> 406
 <212> nucleic acid
 <213> Zea mays

<400> 1508

ctcatctctt acgaaggaag agttcagctt ttggagattg cccaagtacc cggtgagcat 60
 gtgaatgaat ttaaataaat cgagaagttt aagatattca acactaaciaa cttgtgggtg 120
 aaccttaaag ctatcaagag actcgtagag gctgaggcac ttaagatgga aattattcca 180
 aacccaagg aagttgatgg tgtgaaagtc cttcaactcg aaaccgcagc tgggtgcagct 240
 attcggttct tcgacaaagc gattggaatt aatgttcccc gctcaagggt tctcccagtg 300
 aaggctacat ctgatctggt gcttgtgcag tctgatcttt acaccttgggt tgatggcttt 360
 gtcacccgca acccatccag agcgaatcca gctaaccctt caattg 406

<210> 1509
 <211> 412
 <212> nucleic acid
 <213> Zea mays

<400> 1509

ctgacgttaa ggggtggcact ctcatctctt acgaaggaag agttcagctg ttggagagtg 60
 cccaagtacc cgatgagcat gtgaatgaat ttaaataaat cgagaagttt aagatattca 120
 acactaaciaa cttgtgggtg aaccttaaag ctatcaagag actcgtagag gctgaggcac 180
 ttaagatgga aattattcca aacccaagg aagttgatgg tgtgaaagtc cttcaactcg 240
 aaaccgcagc tgggtgcagct attcggttct tcgacaaagc gattggaatt aatgttcccc 300
 gctcaagggt tctcccagtg aaggctacat ctgatctggt gcttgtgcag tctgatcttt 360
 acaccttgggt tgatggcttt gtcacccgca acccatccag agcgaatcca gc 412

<210> 1510
 <211> 436
 <212> nucleic acid
 <213> Zea mays

<400> 1510

cccactcgtc cgcccacgcg tccggggagg cggatcagat cgagtggagc aggatccaga 60

cccctactga tgaggtggtg gtgccctact ataccgtcgc gtcgcctccc gaagatctcg 120

aggagactaa gaagctgctg gataagctcg ttgtgctcaa gcttaactga gggctcggga 180

cgaccatggg ctgcactggg cccaagtctg tcattgaagt ccgcaatggg ttcacattcc 240

ttgaccttat tgtgattcaa attgagtccc tgaacaagaa gtatggatgc aatgtccctt 300

tactttctgat gaactctttc aacacccatg atgacacaca gaagattggt gagaagtatt 360

ccaactccaa catcgaaatt catactttca atcatagcca gtatcctctc attgttaccg 420

aggacttttt gccact 436

<210> 1511

<211> 407

<212> nucleic acid

<213> Zea mays

<220>

<221> unsure

<222> (309)

<223>

<400> 1511

accaagcgtc cggcctcgtg tcacgctacc tcagtgggga agcggagcag atcgagtgga 60

gcaagatcca gacccctacg gatgaggtgg tgggtgcccta cgataccgtc gcgtcgcctc 120

ccgaagatct cgaggagacg aagaagctgc tggataagct cgttgtgctc aagcttaacg 180

gagggctcgg gacgaccatg ggctgcactg ggcccaagtc tgtcattgaa gtccgcaatg 240

ggttcacatt ccttgacctt attgtgattc aaattgagtc cctgaacaag aagtatggat 300

gcaatgtcnc tttacttctg atgaactctt tcaacacca tgatgacaca cagaagattg 360

ttgagaagta ttccaactcc aacatcgaaa ttcatacttt caatcag 407

<210> 1512

<211> 440

<212> nucleic acid

<213> Zea mays

<400> 1512

ggctggtatc ctccaggcca tggatgatgtg ttccctctt tgaataacag tggaaaactc 60

gacatcttat tggctcaggg caaggagtat gtcttcgttg ctaactcaga caacttgggt 120
gctatagtcg acatcaagat cctgaaccat ctgatcaata accagaatga atactgcatg 180
gaggttactc caaaaacatt ggctgatggt aaaggcggta ctctcatctc ttacgaagga 240
agagttcagc ttttggagat tgcccaagta cctgatgagc atgtgaatga gtttaaataca 300
atcgagaagt ttaagatatt caacactaac aacttgtggg tgaaccttaa agctgtcaag 360
agactagtag aggctgaggc acttaagatg gaaattatct caaaccccaa ggaagttgat 420
ggtgtgaaag tccttcaact 440

<210> 1513
<211> 445
<212> nucleic acid
<213> Zea mays

<400> 1513
gaagtattcc aactccaaca tcgaaattca tactttcaat cagagccagt agcctctcgg 60
tgttaccgag gacttcttgc cacttcccag caaagggaaa tctgggaagg atggctggta 120
tcctcctggt catggtgatg tgtttccctc tttgaataac agcggaaaac ttgacatctt 180
attggctcag ggcaaggagt atgtctttgt tgcaaactca gacaacttgg gtgctatagt 240
cgacatcaag atcctaaacc atctgatcaa taaccagaac gagtactgca tggagggttac 300
tccaaagacg ctggctgacg ttaaggggtg cactctcatc tcttacgaag gaagagttca 360
gcttttggag attgccaag tatccgatga gcatgtgaat gaatttaaata caatcgagaa 420
gtttaagata ttcaacacta acaac 445

<210> 1514
<211> 477
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (457)
<223>

<400> 1514
attcggttct tcgacaaagc gattggaatt aatgttcccc gctcaagggt tctcccagtg 60

gaggctacat ctgatctgtt gcttgtgcag tctgatcttt acaccttggt tgatggcttt 120
gtcatccgca acccatccag agcgaatcca gctaaccctt caattgagct tggacctgag 180
ttcaagaagg ttgccaattt ccttggtcgg ttcaagtcca tccccagcat agttgagctt 240
gacagcttga aggtttctgg tgatgtctgg tttggctctg gaattacact caagggcaag 300
gtgacaatta tcgccaagcc tggagtgaag ttggagattc cagatggaga cgtacttgag 360
aacaaggatg tcaatggccc tgaggatctt taagcaatgt ttatcatcac cagttttccc 420
aaggacatgt cacaggaact gccaaagccta atcactncta ctgagctcta tatttttg 477

<210> 1515
<211> 450
<212> nucleic acid
<213> Zea mays

<400> 1515
ggaaattatt ccaaacccca aggaagttgt tgggttgaaa gtccttcaac ttgaaactgc 60
agctgggtgca gctattcggt tctttgacaa agcgattgga attaattgtt cccgctcaag 120
atttctcccg gtgaaggcta catctgattt attgcttgtg cagtctgatc tttacacctt 180
ggttgatggc tttgtcatcc gcaatccatc cagagcgaat ccagctaacc cttcgattga 240
gcttggacct gagttcaaga aggttgccaa tttccttgcg cggttcaagt ccatccccag 300
catcgtcgag cttgacagct tgaaggtttc tgggtgatgtc tggtttggtt ctggaattac 360
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<210> 1516
<211> 438
<212> nucleic acid
<213> Zea mays

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ttcgcgccga ggtcgccaag ctcgaccaga tcagcgagaa cgagaagtcc gggttcatca 180
gcctcgtgtc acgctacctc agtgggggaag cggagcagat cgagtggagc aagatccaga 240

tgctggataa gctcgttgtg ctcaagctta acggagggct cgggacgacc atgggctgca 360
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 t 421

<210> 1519
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 <212> nucleic acid
 <213> Zea mays

<400> 1519

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 agaagtccgg gttcatcagc ctcgtgtcac gctacctcag tggggaagcg gagcagatcg 240
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 <211> 319
 <212> nucleic acid
 <213> Zea mays

<400> 1520

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 ctcactcttt acgaaggaag agttcagctt ttggagattg cccaagtacc tgatgagcat 240
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 aacctttaag ctgtcaaga 319

<210> 1521
 <211> 394

<212> nucleic acid
<213> Zea mays

<400> 1521

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cttgggtgct atagtcgaca tcaagatcct aaaccatctg atcaataacc agaacgagta   300
ctgcatggag gttactccaa agacgctggc tgacgttaag ggtggcactc tcattcttta   360
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<210> 1522
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<212> nucleic acid
<213> Zea mays

<400> 1522

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gaggctgagg cacttaagat ggaaattatt ccaaacccca aggaagttga tgggttgaaa   180
gtccttcaac ttgaaactgc agctgggtgca gctattcggt tctttgacaa agcgattgga   240
attaatgttc cccgctcaag atttctcccg gtgaaggcta catctgattt attgcttgtg   300
cagtctgata ttacacctt ggttgatggc tttgtcatcc gcaatccatc cagagcgaat   360
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<210> 1523
<211> 419
<212> nucleic acid
<213> Zea mays

<400> 1523

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cgcgccgagg tcgccaagct cgaccagatc agcgagaacg agaagtccgg gttcatcagc   180

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ctcgtgtcac ggtacctcag tggggaggcg gagcagatcg agtggagcaa gatccagacc 240
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gagacgaaga agctgctgga taagctcggt gtgctcaagc ttaacggagg gctcgggacg 360
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<211> 408
<212> nucleic acid
<213> Zea mays

<400> 1524

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taacccttca attgagcttg gacctgagtt caagaagggt gccaatctac ttggtcgggt 180
caagtccatc cccagcatag ttgagcttga cagcttgaag gtttctgggt atgtctgggt 240
tggtcttggga attacactca agggcaagggt gacaattatc gccaaacctg tagtgaagtt 300
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<210> 1525
<211> 358
<212> nucleic acid
<213> Zea mays

<400> 1525

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acatcttatt ggctcagggc aaggagtatg tctttgttgc aaactcagac aacttgggtg 180
ctatagtoga catcaagatc ctaaaccatc tgatcaataa ccagaacgag tactgcatgg 240
aggttactcc aaagacgctg gctgacgtta agggtgccac tctcatctct tacgaaggaa 300
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<210> 1526
<211> 349

Abstract The authors have developed a new method for the determination of the concentration of the active species in the polymerization of acrylonitrile (AN) initiated by azobisisobutyronitrile (AIBN) in benzene. The method is based on the measurement of the rate of polymerization of AN in the presence of a known concentration of a radical scavenger, such as hydroquinone (HQ) or 2,2,6,6-tetramethylpiperidine-1-oxyl (TEMPO). The concentration of the active species is determined from the rate of polymerization of AN in the presence of the radical scavenger and the rate of polymerization of AN in the absence of the radical scavenger. The method is applicable to the determination of the concentration of the active species in the polymerization of AN initiated by AIBN in benzene. The concentration of the active species is determined from the rate of polymerization of AN in the presence of a known concentration of a radical scavenger, such as HQ or TEMPO. The method is applicable to the determination of the concentration of the active species in the polymerization of AN initiated by AIBN in benzene.

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gagaaggccg	ggttcatcag	cctcgtgtca	cgctacctca	gtggggaggc	ggagcagatc	180
gagtggagca	agatccagac	cccgaaccgat	gaggtagtgg	tgccgtacga	tacctcacg	240
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tccttaagct atg 373

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<211> 392
<212> nucleic acid
<213> Zea mays

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tttccctctt tgaataacag cggaaaactt gacatcttat tggctcaggg caaagagtat 180
gtctttgttg caaactcaga caacttgggt gctatagtcg acatcaagat cctaaaccat 240
ctgatcaata accagaacga gtactgcatg gaagttactc caaagacgct ggctgacgtt 300
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taccgatga gcatgtgaat gaatttaa at ca 392

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<211> 407
<212> nucleic acid
<213> Zea mays

<400> 1530
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cgtttcgaag cctcgcgagc cccgacgatg gccaccgccg cgggtgctcggc cgacgagaag 120
ctcgacaagc ttcgcgcga ggtcgccaag ctcgaccaga tcagcgagaa cgagaagtcc 180
gggttcatca gcctcgtgtc acgctacctc agtggggaag cggagcagat cgagtggagc 240
aagatccaga cccctacgga tgaggtgggt gtgccctacg ataccgtcgc gtagcctccc 300

<213> Zea mays

<400> 1533

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agtccttcaa ctcgaaaccg cagctgggtgc agctattcgg ttcttcgaca aagcgattgg 180
aattaatggt ccccgctcaa ggtttctccc aatgaaggct acatctgatc tgatgcttgt 240
gcagtctgat ctttaca 257

<210> 1534

<211> 378

<212> nucleic acid

<213> Zea mays

<400> 1534

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gccaccgcg cgggtgctgg cgcgcgagaag ctcgacaagc ttcgcgccga ggctcgccaag 180
ctcgaccaga tcaggcgagt gccccctcc tctccgcact agatctcgcc gcccgatcgc 240
ttcgctccc atttttgctg atttctgagt gtgtttttcc gcgcagcgag aacgagaagt 300
ccgggttcat cagcctcgtg tcacgctacc tcagtgggga agcggagcag atcgagtgga 360
gcaagatcca gacccta 378

<210> 1535

<211> 60

<212> nucleic acid

<213> Zea mays

<400> 1535

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<210> 1536

<211> 342

<212> nucleic acid

<213> Zea mays

<400> 1536

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 cgccaggacg tatattttta ctgaaatgat actccgaaga gc 342

<210> 1537
 <211> 443
 <212> nucleic acid
 <213> Zea mays

<400> 1537
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 accagttttt ccaaggacat gtcacaggaa ctgccaagcc taatcactcc tactgagctc 180
 tatattttgt aattttcatg tgcattccga ttccgctgtg agggcatgt gagcccgcta 240
 gagaataatt gtaatcttct ttgtgcgctc tgtacttctg tttttgtgcg ccaggacgta 300
 tatttttact gaaatgatac tccgtaatat attataatac ttgttttata ttatttttat 360
 tgtttttatt atattattat gtttttttta tgtttttata atttattttt tttttatatt 420
 atttttttat aattttttta ttt 443

<210> 1538
 <211> 229
 <212> nucleic acid
 <213> Glycine max

<400> 1538
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 gcacagcccg atgttgatga tttttggttg gtggtgcctc cctgaagccg gagttcgtgg 180
 acatcataaa tgctgccact gtgaagaaga attgaaattc gtagttagg 229

<210> 1539
 <211> 267

<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (3) ... (4), (6), (14), (24), (53), (65) ... (66), (73), (75), (98),
(108), (113), (120), (125), (142), (150), (152), (174), (179),
(183), (189), (210), (224) ... (226), (230), (232), (235), (248),
(252), (255)
<223> unsure at all n locations
<400> 1539

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gggancaatg aggaggtaaa gnagattgtg antactttga atgaggctaa agtngctgna 180
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tgctgcanct gnttnccatg tttcggc 267

<210> 1540
<211> 265
<212> nucleic acid
<213> Glycine max

<400> 1540
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tacagatagg attgaaattt ctgcccagaa ttcttgggtg ggaaaagggtg gggctttcac 180
gggagaaatc agtgtggagc aactaaaaga ccttggctgc aagtgggtta ttcttggaca 240
ttctgagcga agacatgtaa ttgga 265

<210> 1541
<211> 259
<212> nucleic acid
<213> Glycine max

<400> 1541
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aatgcaaaat tggagcctga tgttgatgtt gtcgttgac ctcccttcct ctacatcgat 120
caagtgaaaa actcactcac tgagcggctt gacatatctg cccagaattc ttgggttgga 180

aaaggtggtg cttttactgg agaaatcagc gcggaacaac taaacgatct tggatgcacg 240
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<210> 1542
 <211> 245
 <212> nucleic acid
 <213> Glycine max

<400> 1542

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 tcccgtaggg ttgtagccat ggctggctct ggcaagttct ttgttggtgg caattggaag 180
 tgtaatggga ccaaagactc catcagaaag cttgtctctg acttgaacag tgcaacattg 240
 gagtc 245

<210> 1543
 <211> 283
 <212> nucleic acid
 <213> Glycine max

<400> 1543

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 ccattccacc ctctcttctc cttcttctaa accctcccg ggctgttag ccatggctgg 180
 ctctggcaag ttctttgttg gtggcaattg gaagtgtaat gggaccaaag actccatcag 240
 aaagcttgct tctgacttga acagtgaac attggagtct gat 283

<210> 1544
 <211> 249
 <212> nucleic acid
 <213> Glycine max

<400> 1544

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 tcttcccttc cttctaaacc ctctcgtagc gttgtagcca tggctggctc tggcaagttc 180

tttgatggtg gcaattggaa gtgtaatggt accaaagact ccatcagaca gcttgtctct 240
gttttgaac 249

<210> 1545
<211> 278
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (124), (129), (148) ... (149), (152), (157), (204)
<223> unsure at all n locations

<400> 1545

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cttnagecng tccattccac cctctctnnc anaacantct aaaccctccc gtggcggtgt 180
agccatggct ggctctggca agtnctttgt tgggtggcaat tggaaagtga atgggaccaa 240
agactccatc agaaagttgt ctctggattg aacaggca 278

<210> 1546
<211> 268
<212> nucleic acid
<213> Glycine max

<400> 1546

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ctctcaactc acaacctttc tcatcctcac tctccttctt ccgaaatgtc cattccaccc 180
tctctttccc ttcttataaa ccttcccgtg gcgttgtagc catggctggc tctggcaagt 240
tctttgttgg tggcaattgg aagtgtaa 268

<210> 1547
<211> 289
<212> nucleic acid
<213> Glycine max

<400> 1547

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 atgtaattgg agaaaatgat gagtttatag gaaagaaaac tgcctatgct ttgagtgagg 180
 gtcttgggtg gatagcatgt attgggggaa ttctacaaga aagagaagct ggtcaaaactt 240
 tcgacatttg tttccagcaa ttgaaggctt ttgcagatgc agtgccaag 289

<210> 1548
 <211> 270
 <212> nucleic acid
 <213> Glycine max

<400> 1548

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 catgtaattg gagaaaatga tgagtttata gggaagaagg ctgtctatgc tttgagtgag 180
 ggtctagggtg tgatagcatg tattgggggaa ctgttacaag aaagagaagc tgggaaaact 240
 ttcgatgttt gttttcagca attgaaggct 270

<210> 1549
 <211> 281
 <212> nucleic acid
 <213> Glycine max

<400> 1549

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 ttgttcttgg acattctgag cgaagacatg ttattggaga aaatgatgag tttatagggg 180
 cgaaagctgc ctatgctttg agccaagggtc ttgggggtgat tgcattgcatt ggagaattgt 240
 tagaagaaag ggaggctgga aaaacttttg atgtttgttt t 281

<210> 1550
 <211> 223
 <212> nucleic acid
 <213> Glycine max

<400> 1550

<211> 275
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (30)
 <223>

<400> 1553

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 catgctgatt taaggaaatg gggtcatgac aatgtgagtg ctgaagttgc tgcattctgta 180
 agaattatct atggaggctc tgtaaatgga ggaaactgca aagaattggc agcacagccc 240
 gatgttgatg gatTTTTTggT tggTggTgca tccct 275

<210> 1554
 <211> 268
 <212> nucleic acid
 <213> Glycine max

<400> 1554

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 gagactctcg aacagcgtga agctgggtaca acaacggctg ttgtttctga gcaaacaata 120
 gcaattgcag ctaaaatata aaattgggac aatgtcggtt tggcctacga gccagtttgg 180
 gccattggaa caggaaaggT tgcTactcct gctcaggctc aagagggtcca tgctgatttg 240
 aggaaatggg ttcatgacaa tgtgagtg 268

<210> 1555
 <211> 264
 <212> nucleic acid
 <213> Glycine max

<400> 1555

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 gcaattgcag ctaaaatata aaattgggac aatgtcggtt tggcctatga gccagtttgg 180
 gccattggaa caggaaaggT tgcaactcct gctcaggctc aagagggttca tgctgattta 240

aggaaatggg ttcatgacaa tgtg

264

<210> 1556
<211> 256
<212> nucleic acid
<213> Glycine max

<400> 1556

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agcaaacaaa agcaattgca gctaaaatat caaattggga caatgtcggt ttggcctatg 120
agccagtttg ggccattgga acaggaaagg ttgcaactcc tgctcaggct caagagggtc 180
atgctgattt aaggaaatgg gttcatgaca atgtgagtgc tgaaattgct gcatctgtaa 240
gaattatcta tggagg 256

<210> 1557
<211> 270
<212> nucleic acid
<213> Glycine max

<400> 1557

gtccctggag aagatgttgt agaagttgtt gtgagccctc cttttgtgtt ccttcctttt 60
gtaaaaagtt tgctgcgccc tgatttccat gtctcgcccc aaaattgttg ggttcgcaaa 120
ggtggtgctt atactggagt cgttagtgtt gaaatgcttg ttaatttggg aattccttgg 180
gttattattg gtcactctga acggaggcag cttttgaatg aatcaaata gtttgtggga 240
gataaagttg cctatgcact tcaacaaggt 270

<210> 1558
<211> 264
<212> nucleic acid
<213> Glycine max

<400> 1558

cggagataaa gttgcctatg cacttcaaca aggtctaaca gttattgcat gcattgggga 60
gactctcgaa cagcgtgaag ctggtacaac aacggctggt gtttctgagc aaacaaaagc 120
aattgcagct aaaatatcaa attgggacaa tgttgttttg gcctacgagc cagtttgggc 180
cattggcaca ggaaaggttg ctactcctgc tcaggctcaa gaggtccatg ctgatctgag 240

gaaatgggtt catgacaatg tgag

264

<210> 1559
<211> 258
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (128), (147), (238), (248)
<223> unsure at all n locations

<400> 1559

gcattgggga gactctcgaa cagcgtgaag ctggtacaac aacggctgtt gtttctgagc 60
aaacaaaagc aattgcagct aaaatatcaa attgggacaa tgcggttttg gcctacgagc 120
cagtttgngc cattggaaca ggaaagnttg ctactcctgc tcaggctcaa gaggtccatg 180
cggatttgag gaaatgggtt catgacaatg tgagtgtga agttgctgca tcggtaanat 240
ttatctangg aggtctgt 258

<210> 1560
<211> 278
<212> nucleic acid
<213> Glycine max

<400> 1560

tgcttatact ggagagggtta gtgctgaaat gcttggttaat ttgggaattc cttgggttat 60
tattggtcac tctgaacgga ggcagctttt gaatgaatca aatgagtttg tgggagataa 120
agttgcctat gcacttcaac aagggtctgaa agttatagca tgcattgggg aaactcttga 180
acagcgtgaa gctggtacaa caacggctgt tgttgctgag caaacaaaag caattgcagc 240
taaaatatca aattgggaca atgctgtttt ggcctatg 278

<210> 1561
<211> 278
<212> nucleic acid
<213> Glycine max

<400> 1561

ctcgtttcaa tcgaaaccaa aacaaaaaca tgggcagaaa attcttcgtc ggtggcaact 60

<210> 1570
 <211> 284
 <212> nucleic acid
 <213> Glycine max

 <400> 1570

 atcttcactt tctctcgttt caatcgaaac caaaacaaaa acatgggcag aaaattcttc 60
 gtcggtggca actggaaatg caatgggacc actgaggagg taaagaagat tgttactact 120
 ttgaatgagg ctaaagtccc tggagaagat gtcgtagaag ttgttgtagag ccctcctttt 180
 gtgttccttc ctgttgtaaa aagtttgctg cgccctgatt tccatgtttc ggcacaaaaac 240
 tgttgggttc gcaaagggtg tgcttatacc ggtgaggtta gtgc 284

<210> 1571
 <211> 262
 <212> nucleic acid
 <213> Glycine max

 <400> 1571

 gcttcttcac tttctctcgt ttcaatcgaa accaaaacaa aaacatgggc agaaaattct 60
 tcgtcgttg caactggaaa tgcaatggga ccaactgagga ggtaaagaag attgttacta 120
 ctttgaatga ggctaaagtc cctggagaag atgtcgtaga agttgttgtag agccctcctt 180
 ttgtgttcct tctgttgta aaaagtttgc tgcgccctga tttccatgtt tcggcacaaa 240
 actgttgggt tcgcaaagggt gg 262

<210> 1572
 <211> 274
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (182)
 <223>

<400> 1572

 ctctttctct gtctgcttct tcactttctc tcgtttcaat cgaaaaaaat catgggcaga 60
 aaattcttcg tcggtggcaa ctggaaatgc aatgggacca ctgaggaggt gaagaagatt 120
 gttactactt taaatgaagc taaagtccct ggagaagatg ttgtagaagt tgttgtgagc 180

cntccttttg tgttccttcc ttttgtaaaa agtttgctgc gccctgattt ccatgtctcg 240
gccc aaaatt gttgggttcg caaagtgggtg ctta 274

<210> 1573
<211> 253
<212> nucleic acid
<213> Glycine max

<400> 1573

cactttctct cgtttcaatc gaaaaaaatc atgggcagaa aattcttcgt cgggtggcaac 60
tggaatgca atgggaccac tgaggaggtg aagaagattg ttactacttt aaatgaagta 120
aagtccttgg agaagatgtt gtagaagttg ttgtgagccc tccttttgtg ttccttcctt 180
ttgtaaaaag tttgctgcgc cctgatttcc atgtctcggc ccaaattgt tgggttcgca 240
aaggtgggtgc tta 253

<210> 1574
<211> 284
<212> nucleic acid
<213> Glycine max

<400> 1574

aagggtttct cttctctttc tctgtctgct tcttcacttt ctctcgtttc aatcgaaaaa 60
aatcatgggc agaaaattct tcgtcgggtg caactggaaa tgcaattggg aactgagga 120
ggtgaagaag attgttacta ctttaaataga agctaaagtc cctggagaag atgtttaga 180
agttgttgtg agccctcctt ttgtgttctt tccttttgta aaacgtttgc tgcgccctga 240
tttccatgtc tcggcccaaa attgttgggt tcgcaaaggt ggtg 284

<210> 1575
<211> 278
<212> nucleic acid
<213> Glycine max

<400> 1575

gcttcttcac tttctctcgt ttcaatcgaa agcaaaacaa aaacatgggc agaaaattct 60
tcgtcgggtg caactggaaa tgcaatggga cactgagga ggtaaagaag attgttacta 120
ctttgaatga ggctaaagtc cctggagaag atgtcgtaga agttgttgtg agccctcctt 180

ttgtgttccct tctgtgtgta aaaagtttgc tggcgccctg atttccatgt ttcggcacia 240
aactgttggg ttcgcaaagg tgggtgcttat accggtga 278

<210> 1576
<211> 271
<212> nucleic acid
<213> Glycine max

<400> 1576
aagggtttct ctttctcttt ctctgtctgc ttcttcaatt tctctcgttt caatcgaaaa 60
aatcatggg cagaaaattc ttcgtcggtg gcaactggaa atgcaatggg accactgagg 120
aggatgaaga gattgttact actttaaatg aagctaaagt ccctggagaa gatgtttag 180
aagttgtgtg gagccctcct tttgtgttcc ttcttttgt aaaaagtttg ctgcgccctg 240
atttccatgt ctggcccaa aattgttggg t 271

<210> 1577
<211> 263
<212> nucleic acid
<213> Glycine max

<400> 1577
gtttctctgt ctgcttcttc actttctctc gtttcaatcg aaacaaaac aaaaacatgg 60
gcagaaaatt ctctgtcggt ggcaactgga aatgcaatgg gaccactgag gaggtaaaga 120
agattgttac tactttgaat gaggttaaag tccctggaga agatgtcgta gaagttgttg 180
tgagccctcc ttttgtgttc ctctctgttg taaaagttt gctgcgccct gatttccatg 240
tttcggcaca aaactgttgg gtt 263

<210> 1578
<211> 285
<212> nucleic acid
<213> Glycine max

<400> 1578
ctcgagccgg ttgaacaagg gtttctctgt ctgcttcttc actttctctc gtttcaatac 60
gcaacaaaa caaaaacatg ggcagaaaat tcttcgtcgg tggcaactgg aatgcaatg 120
ggaccactga ggaggtaaag aagattgtta ctactttgaa tgaggctaaa gtccctggag 180

aagatgtcgt agaagttggt gtgagccctc cttttgtggt ccttcctggt gtaaaaagtt 240
tgctgcgccc tgatttccat gtttcggcac aaaactgttg ggtagc 285

<210> 1579
<211> 269
<212> nucleic acid
<213> Glycine max

<400> 1579

aagggtttct ctgtctgctt cttcactttc tctcgtttca atcgaaacca aaacaaaaaac 60
atgggcagaa aattcttcgt cggtaggcac tggaaatgca atgggaccac tgaggaggta 120
aagaagattg ttactacttt gaatgaggct aaagtccttg gagaagatgt cgtagaagtt 180
gttgtgagcc ctctttttgt gttccttcct gttgtaaaaa gtttgctgag ccctgatttc 240
catgtttcgg cacaaaactg ttgggttcg 269

<210> 1580
<211> 253
<212> nucleic acid
<213> Glycine max

<400> 1580

gcactttctc tcgtttcaat cgaaacaaaa ctccaaacgt gggcagaaaa ttcttcgtagc 60
gtggcaactg gaaatgcctt gggaccactg aggaggtaaa gaagattggt actactttga 120
atgaggctaa agtccttgga gaagatgtcg tagaagttgt tgtgagccct cctttttgtgt 180
tccttcctgt tgtaaaaagt ttgctgcgcc ctgatttcca tgtttcggca caaaaactgtt 240
gggttcgcaa agg 253

<210> 1581
<211> 253
<212> nucleic acid
<213> Glycine max

<400> 1581

gtttcaatcg aaaaaaatca tgggcagaaa attcttcgtc ggtggcaact ggaaatgcaa 60
tgggaccact gaggagggtga agaagattgt tactacttta aatgaagcta aagtccttg 120
agaagatggt gtagaagttg ttgtgagccc tcctttttgtg ttccttcctt ttgtaaaaag 180

gtttcggcac aaaact

256

<210> 1585
<211> 255
<212> nucleic acid
<213> Glycine max

<400> 1585

tcgctgtctg cttcttcact ttctctcgtt tcaatcgaga ccagaacaaa aacatgggca 60

gaaaattctt cgtcgggtggc aactggaaat gcaatgggat cactgaggag gtaaagaaga 120

ttgttactac tttgaatgag gctaaagtcc ctggagaaga tgcgtagaa gttgttgtga 180

gccctccttt tgtgttcctt cctgttgtaa aaagtttgct gcgccctgat ttccatgttt 240

cggcacgaaa ctggt 255

<210> 1586
<211> 259
<212> nucleic acid
<213> Glycine max

<400> 1586

tctgtctgct tcttcacttt ctctcgtttc aatcgaaacc aaaacaaaaa catgggcaga 60

aaattcttcg tcggtggcaa ctggaaatgc aatgggacca ctgaggaggt aaagaagatt 120

gttactactt tgaatgaggc taaagtcctt ggagaatgtc gtagaagttg ttgtgagccc 180

tccttttgtg ttcttctctg ttgtaaaaag ttgtctgcgc cctgatttcc atgtttcggc 240

acaaaactgt tgggttcgc 259

<210> 1587
<211> 250
<212> nucleic acid
<213> Glycine max

<400> 1587

tgettcttca ctttctctcg tttcaatcga gaaaaatcat gggcagaaga ttcttcgtcg 60

gtggcaactg gaaatgcaat gggaccactg aggaggtgaa gaagattgtg actactttaa 120

atgaagctaa agtccctgga gagatgttgt agaagttggt gtgagccctc cttttgtgtt 180

ccttcttttt gtaaaaagtg tgctgcgccc tgatttccat gtctcggccc aaaattgttg 240

ggttcgcaaa

250

<210> 1588
<211> 265
<212> nucleic acid
<213> Glycine max

<400> 1588

attgttgaac aagggtttct ctgtctgctt cttcactttc tctcgtttca atcgaaacca 60
aaacaaaaac atgggcagaa aattcttcgt cggtggcaac tggaaatgca atgggaccac 120
tgaggaggtta aagaagattg ttactacttt gaatgaggct aaagtccttg gagaagatgt 180
cgtagaagtt gttgtgagcc ctccctttgt gttccttcct gttgtaaaaa gtttgctgcg 240
ccctgatttc catgtttcgg cacaa 265

<210> 1589
<211> 267
<212> nucleic acid
<213> Glycine max

<400> 1589

gtttctcttt ctctttctct gtctgcttct tcactttctc tcgtttcaat cgaaaaaat 60
catgggcaga aaattcttcg tcggtggcaa ctggaaatgc aatgggacca ctgaggaggt 120
gaagaagatt gttatacttt aaatgaagct aaagtccttg gagaagatgt tgtagaagtt 180
gttgtgagcc ctccctttgt gttccttcct tttgtaaaaa gtttgctgcg ccctgatttc 240
catgtctcgg cccaaaattg ttgggtt 267

<210> 1590
<211> 250
<212> nucleic acid
<213> Glycine max

<400> 1590

agggtttctc tttctctttc tctgtctgct tcttcacttt ctctcgtttc aatcgaaaaa 60
aatcatgggc agaaaattct tcgtcggtgg caactggaaa tgcaatggga ccaactgagga 120
ggtgaagaag attgttacta ctttaaataga agctaaagtc cctggagaag atgttgtaga 180
agttgttggtg agccctcctt ttgtgttcct tccttttgta aaaagtttgc tgcgccctga 240

tttccatgtc 250

<210> 1591
<211> 251
<212> nucleic acid
<213> Glycine max

<400> 1591

gttgaacaag ggtttctctg tctgcttctt cactttctct cgtttcaatc gaaaccataa 60
caaaaacatg ggcagaaaat tcttcgtcgg tggcaactgg aaatgcaatg ggaccactga 120
ggaggtaaag aagattgtta ctactttgaa tgaggctaaa gtccctggag aagatgtcgt 180
agaagttgtt gtgagccctc cttttgtgtt ccttcctggt gtaaaaagtt tgctgcgctc 240
tgatttccat g 251

<210> 1592
<211> 245
<212> nucleic acid
<213> Glycine max

<400> 1592

cttctctgtc tgctttcttca ctttctctcg tttcaatcga aacaaaaaca aaaacatggg 60
cagaaaattc ttcgtcgggtg gcaactggaa atgcaatggg accactgagg aggtaaagaa 120
gattgttact actttgaatg aggctaaagt ccctggagaa gatgtcgtag aagttgttgt 180
gagccctcct tttgtgttcc ttcctgttgt aaaaagtttg ctgcgccctg atttccatgt 240
ttcgg 245

<210> 1593
<211> 253
<212> nucleic acid
<213> Glycine max

<400> 1593

gggtttctct ttctctttct ctgtctgctt cttcactttc tctcgtttca atcgaaaaaa 60
atcatgggca gaaaattctt cgtcggtggc aactggaaat gcaatgggac cactgaggag 120
gtgaagaaga ttgttactac tttaaatgaa gctaaagtcc ctggagaaga tgttgtagaa 180
gttggtgtga gccctccttt tgtgttcctt cttttgttaa aaagtttgct gcgcctgat 240

ttccatgtct cgg 253

<210> 1594
 <211> 262
 <212> nucleic acid
 <213> Glycine max

<400> 1594

tgttgaacaa gggtttctct gtctgtctct tcactttctc tcgtttcaat cgaaacaaaa 60
 aaaaaatcat gggcagaaaa ttcttcgttg gtggcaactg gaaatgcaat gggaccactg 120
 aggaggtaaa gaagattggt actactttga atgaggctaa agtacctgga gaagatgtcg 180
 tagaagttgt tgtgagccct ccttttgtgt tccttcctgt tgtaaaaagt ttgctgcgcc 240
 ctgatttcca tgtttcggca ca 262

<210> 1595
 <211> 253
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (80), (161), (249)... (250)
 <223> unsure at all n locations

<400> 1595

agggtttctc tgtctgtctc ttcactttct ctcgtttcaa tcgaaaccaa aacaaaaaca 60
 tgggcagaaa attcttcgtn ggtggcaact ggaaatgcaa tgggaccact gaggaggtaa 120
 agaagattgt tactactttg aatgaggcta aagtccttgg ngaagatgtc gtagaagttg 180
 ttgtgagccc tccttttgtg ttccttcctg ttgtaaaaag tttgctgcgc cctgatttcc 240
 atgtttcgnn cac 253

<210> 1596
 <211> 249
 <212> nucleic acid
 <213> Glycine max

<400> 1596

gttgaacaag ggtttctctg tctgtctctt cactttctct cgtttcaatc gaaacaaaaa 60

<400> 1599

gttgaacaag ggtttctctg tctgcttctt cactttctct cgtttcaatc gaaacaaaa 60

caaaaacatg ggcagaaaat tcttcgtcgg tggcaactgg aaatgcaatg ggaccactga 120

ggaggtaaag aagattgtta ctactttgaa tgaggctaaa gtccctggag aagatgtcgt 180

agaagttgtt gtgagccctc cttttgtgtt ccttcctggt gtaaaaagtt tgctgcgccc 240

tgatttccat gtttcggcac aaa 263

<210> 1600

<211> 251

<212> nucleic acid

<213> Glycine max

<400> 1600

tgttgaacaa gggtttctct gtctgcttct tcactttctc acgtttcaat cgaaacaaaa 60

acaaaaacat gggcagaaaa ttcttcgtcg gtggcaactg gaaatgcaat gggaccactg 120

aggaggtaaa gaagattgtt actactttga atgaggctaa agtccctgga gaagatgtcg 180

tagaagttgt tgtgagccct accttttctg ttcttacctg ttgtaaaaag tttgctgcgc 240

cctgatttcc a 251

<210> 1601

<211> 255

<212> nucleic acid

<213> Glycine max

<400> 1601

tgaacaaggg tttctctgtc tgcttcttca ctttctctcg tttcaatcga aacaaaaaca 60

aaaacatggg cagaaaattc ttcgtcgggt gcaactggaa atgcaatggg accactgagg 120

aggtaaagaa gattgttact actttgaatg aggctaaagt ccctggagaa gatgtcgtag 180

aagttgttgt gagccctcct tttgtgttcc ttctgttgt aaaaagtttg ctgcgccttg 240

atttccatgt ttcgg 255

<210> 1602

<211> 246

<212> nucleic acid

<213> Glycine max

<400> 1602
 tgttgaacaa ggggtttctct gtctgcttct tcactttctc tcgtttcaat cgaaaccaaa 60
 acaaaaacat gggcagaaaa ttcttcgtcg gtggcaactg gaaatgcaat gggaccactg 120
 aggaggtaaa gaagattgtt actactttga atgaggctaa agtccctgga gaagatgtcg 180
 tagaagtgtt tgtgagccct ccttttgtgt tccttcctgt tgtaaaaagt ttgctgcgcc 240
 ctgatt 246

<210> 1603
 <211> 249
 <212> nucleic acid
 <213> Glycine max

<400> 1603
 attgttgaac aagggtttct ctgtctgctt cttcactttc tctcgtttca atcgaaacca 60
 aaacaaaatc atgggcagaa aattcttcgt tgggtggcaac tggaaatgca atgggaccac 120
 tgaggaggta aagaagattg ttactacttt gaatgaggct aaagtccctg gagaagatgt 180
 cgtagaagtt gttgtgagcc ctccttttgt gttccttcct gttgtaaaaa gtttgcgcgc 240
 ccctgattt 249

<210> 1604
 <211> 227
 <212> nucleic acid
 <213> Glycine max

<400> 1604
 tgctttcttca ctttctctcg tttcaatcga aacaaaaaca aaaacatggg cagaaaattc 60
 ttcgtcggtg gcaactggaa atgcaatggg accactgagg aggtaaagaa gattgttact 120
 actttgaatg aggctaaagt cccgggggaa gatgtcgtag aagttgttgt gagccctcct 180
 tttgtgttcc ttctgttgtt aaaaagtttg ctgcgcctcg atttcca 227

<210> 1605
 <211> 266
 <212> nucleic acid
 <213> Glycine max

<400> 1605

<221> unsure
 <222> (17), (23), (29) ... (30), (76) ... (77), (98), (103), (132),
 (206)
 <223> unsure at all n locations

 <400> 1608

 gttgaacaag ggtttcncctg tenccttcnn cactttctct cgttttcaat cgaaacccaaa 60
 acaaaatcat gggcannaaa ttcttcgctg gtggcaantg ganatgcaat gggaccactg 120
 aggaggtaaa gnagattggt actactttga atgaggctaa agtccctgga gaagatgtcg 180
 tagaagttgt tgtgagccct cctttngtgt tccttcctgt tgtaaaaagt ttgctgcgcc 240
 ctgatttcca tg 252

<210> 1609
 <211> 266
 <212> nucleic acid
 <213> Glycine max

 <400> 1609

 tttctctttc tctttctctg tctgcttctt cactttctct cgttttcaatc gaaaaaaatc 60
 atgggcagaa aattcttcgt cggtaggcaac tggaaatgca atgggaccac tgaggagggtg 120
 aagaagattg ttactacttt aaatgaagct aaagtccctg gagaagatgt tgtagaagtt 180
 gttgtgagcc ctcttttgt gttccttcct tttgtaaaaa gtttgctggc gccctgattt 240
 ccatgtctcg gcccaaaatt gttggg 266

<210> 1610
 <211> 339
 <212> nucleic acid
 <213> Glycine max

 <220>
 <221> unsure
 <222> (334)
 <223>

 <400> 1610

 gttgaacaag ggtttctctg tctgcttctt cactttctct cgttttcaatc gaaacccaaaa 60
 caaaaacatg ggcagaaaat tcttcgctcg tggcaactgg aaatgcaatg gggaccactg 120
 aggaggtaaa gaagattggt actactttga atgaggctaa agtccctgga gaagatgtcg 180

ttaaaatcat gggcagaaaa ttcttcgctg gtggcaactg gaaatgcaat gggaccactg 60
aggaggtgaa gaagattggt actactttta atgaagctaa agtcacctgga gaagatggtg 120
tagaagttgt tgtgagccct ccttttgtgt tccttccttt tgtaaaaagt ttgctgcgcc 180
ctgatttcca 190

<210> 1614
<211> 249
<212> nucleic acid
<213> Glycine max

<400> 1614
caatgaacaa gggtttctct ttctctttct ctgtctgctt cttcactttc tctcgtttca 60
atcgaaaaaa atcatgggca gaaaattctt cgtcggtggc aactggaaat gcaatgggac 120
cactgaggag gtgaagaaga ttgttactac tttaaataaa gctaaagtcc ctggagaaga 180
tgttgtagaa gttgttgtga gccctccttt tgtgttcctt ccttttgtaa aaagtttgct 240
gcgccctga 249

<210> 1615
<211> 257
<212> nucleic acid
<213> Glycine max

<400> 1615
gttgaacaag ggtttctctg tctgcttctt cactttctct cgtttcaatc gaaacaaaaa 60
caaaaacatg ggcagaaaat tcttcgctcg tggaactgg aaatgcaatg ggaccactga 120
ggaggtaaag aagattgtta ctactttgaa tgaggctaaa gtccctggag aagatgtcgt 180
agaagttggt gtgagccctc cttttgtggt ccttcctggt gtaaaagttt gctgcgccct 240
gatttccatg ttccggc 257

<210> 1616
<211> 237
<212> nucleic acid
<213> Glycine max

<400> 1616
ctcgagccgg ttgaacaagg gtttctctgt ctgcttcttc actttctctc gtttcaatcg 60

aaacccaaaac aaaaacatgg gcagaaaatt ctctgctcggg ggcaactgga aatgcaatgg 120
gaccactgag gaggttaaaga agattgttac tactttgaat gaggctaaag tccctggaga 180
agatgtcgta gaagttgttg tgagccctcc ttttgtgttc cttcctcttg taaaaag 237

<210> 1617
<211> 245
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (190)
<223>

<400> 1617

gtagaactga acaagggttt ctctttctct ttctctgtct gcttcttcac tttctctcgt 60
ttcaatcgca aaaaaatcat gggcagaaaa ttcttcgtcg gtggcaactg gaaatgcaat 120
gggaccactg aggaggtgaa gaagattgtt actactttaa atgaagctaa agtccctgga 180
gaagatgtn aagaagttgt tgtgagccct ccttttgtgt tccttccttt gtaaaaagtt 240
tgctg 245

<210> 1618
<211> 259
<212> nucleic acid
<213> Glycine max

<400> 1618

agggtttctc tttctctttc tctgtctgct tcttcacttt ctctcgttca atcgaaaaaa 60
atcatgggca gaaaattctt cgtcgggtggc aactggaaat gcaatgggac cactgaggag 120
gtgaagaaga ttgttactac tttaaatgaa gctaaagtcc ctggagaaga tgttgtagaa 180
gttggtgtga gccctccttt tgtgttcctt ccttttgtaa aaagtttgct gcgcctgat 240
ttccatgtct cggcccaaa 259

<210> 1619
<211> 241
<212> nucleic acid
<213> Glycine max

<220>
 <221> unsure
 <222> (221)
 <223>

 <400> 1619

 gggtttctctt tctctttctc tgtctgcttc ttcactttct ctcgtttcaa tcgaaaaaaa 60
 tcatgggcag aaaattcttc gtcggtggca actggaaatg caatgggacc actgaggagg 120
 tgaagaagat tgttactact ttaaatagaag ctaaagtcctc tggagaagat gttgtagaag 180
 ttgttgtagag cctctctttt gtgttcctcc ttttgtaaaa ngtttgctgc gccctgattt 240
 c 241

<210> 1620
 <211> 272
 <212> nucleic acid
 <213> Glycine max

 <400> 1620

 tacggctgcg agaagacgac agaaggggac tcgcagttgt attgttgaac aagggtttct 60
 ctgtctgctt cttcactttc tctcgtttca atcgaaacca aaacaaaaac atgggcagaa 120
 aattcttcgt cggtggcaac tggaaatgca atgggaccac tgaggaggta aagaagattg 180
 ttactacttt gaatgaggct aaagtcctcg gagaagatgt cgtagaagtt gttgtgagcc 240
 ctctttttgt gttccttctt gttgtaaaaa gt 272

<210> 1621
 <211> 221
 <212> nucleic acid
 <213> Glycine max

 <400> 1621

 tgttgaacaa gggtttctct gtctgcttct tcactttctc tcgtttcaat cgaaacaaaa 60
 aaaaaaacat gggcagaaaa ttcttcgtcg gtggcaactg gaaatgcaat gggaccactg 120
 aggaggtaaa gaagattggt actactttga atgaggctaa agtccctgga gaagatgtcg 180
 tagaagttgt tgtgagccct ccttttgtgt tccttctgt t 221

<210> 1622
 <211> 266

<212> nucleic acid
<213> Glycine max

<400> 1622

aacggctgcg agaagacgac agaagggggc agttgtattg ttgaacaagg gtttctctgt 60
ctgcattcttc gctttctctc gtttcaatcg aaacccaaac aaaaacatgg gcagaaaatt 120
cttcgtcggg ggcaactgga aatgcaatgg gaccactgag gaggtaaaga agattgttac 180
tactttgaat gaggctaaag tccctggaga agatgtcgta gaagttgttg tgagccctcc 240
ttttgtgttc cttcctgttg taaaaa 266

<210> 1623
<211> 260
<212> nucleic acid
<213> Glycine max

<400> 1623

ggctgcgaga agacgacaga aggggactcg cagttgtatt gttgaacaag ggtttctctg 60
tctgcttctt cactttctct cgtttcaatc gaaacccaaa caaaaacatg ggcagaaaat 120
tcttcgtcgg tggcaactgg aaatgcaatg ggaccactga ggaggtaaag aagattgtta 180
ctactttgaa tgaggctaaa gtccctggag aagatgtcgt agaagttgtt gtgagccctc 240
cttttgtgtt ccttctgtt 260

<210> 1624
<211> 273
<212> nucleic acid
<213> Glycine max

<400> 1624

gttgaacaag ggtttctctg tctgcttctt cactttctct cgtttcaatc gaaacccaaa 60
caaaaacatg ggcagaaaat tcttcgtcgg tggcaactgg aaatgcaatg ggaccactga 120
ggaggtaaag aagattgtta ctactttgaa tgaggctaaa gtccctggag aagatgtcgt 180
agaagttgtt gtgagccctc cttttgtgtt ccttctgtt gtaaaaagtt tgctgcgccc 240
tgatttccat gtttcggcac aaaactgttg ggt 273

<210> 1625
<211> 257

100

<400>	1625
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<210>	1626
<211>	272
<212>	nucleic acid
<213>	Glycine max

<400>	1626
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<210>	1627
<211>	253
<212>	nucleic acid
<213>	Glycine max

<400> 1627

tacggctgcg	agaagacgac	agaagggggac	tgcagttgc	attgttgaac	aagggtttct	60
ctgtctgctt	cttcactttc	tctcgtttca	atcgaaacca	aaacaaaaac	atgggcagaa	120
aattcttcgt	cggtggcaac	tggaaatgca	atgggaccac	tgaggaggta	aagaagattg	180
ttactacttt	gaatgaggct	aaagtccctg	gagaagatgt	cgtagaagtt	gttgtgagcc	240

<211> 274
 <212> nucleic acid
 <213> Glycine max

<400> 1631

gtagaactga acaaggggtt ctctttctct ttctctgtct gcttcttcac tttctctcgt 60
 ttcaatcgaa aaaaatcatg ggcagaaaat tcttcgtcgg tggcaactgg aaatgcaatg 120
 ggaccactga ggaggtgaag aagattgtta ctactttaaa tgaagctaaa gtccctggag 180
 aagatgttgt agaagttgtt gtgagccctc cttttgtgtt ctttcctttt gtaaaaagtt 240
 tgctgcgcgc tgatttccat gtctcggccc aaaa 274

<210> 1632
 <211> 255
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (45), (61), (106), (110), (119), (123), (126), (130),
 (141) ... (143), (145), (161), (172) ... (174), (194), (199),
 (207) ... (208), (216), (221), (228), (230), (238), (251)
 <223> unsure at all n locations

<400> 1632

ctttctcttt ctctgtctgc ttcttcaatt tctctcgttt caatngaaaa aaatcatggg 60
 nagaaaattc ttcgtgcggg ggcaactgga aatgcaatgg gaccanttan gacgtgaana 120
 agnttnttan tactttaaat nnnngntaaag tccctggaga ngatgttgta gnnnttggtg 180
 tgagccctcc tttngtgtnc cttcctnntg taaaangttt nctgcgcncn gatttccntg 240
 tctcggccca naatt 255

<210> 1633
 <211> 262
 <212> nucleic acid
 <213> Glycine max

<400> 1633

cgagaagacg acagaagggg gcagttgtat tgttgaacaa gggtttctct gtctgcttct 60
 tcactttctc tcgtttcaat cgaaacccaaa acaaaaacat gggcagaaaa ttcttcgtcg 120
 gtggcaactg gaaatgcaat gggaccactg aggaggtaaa gaagattgtt actactttga 180

atgaggctaa agtccctgga gaagatgtcg tagaagttgt tgtgagcctc cttttgtggt 240
cttcctgttg taaaagttgc tg 262

<210> 1634
<211> 264
<212> nucleic acid
<213> Glycine max

<400> 1634

gttgaacaag ggtttctctg tctgcttctt cactttctct cgtttcaatc gaaacaaaaa 60
caacaacatg ggcagaaaat tcttcgtcgg tggcaactgg aaatgcaatg ggaccactga 120
ggaggtaaag aagattgtta ctactttgaa tgaggctaaa gtccctggag aagatgtcgt 180
agaagttggt gtgagccctc cttttgtggt ctttcctgtt gtacaaaagt tgctgcgccc 240
tgatttccat gtttcggcac aaaa 264

<210> 1635
<211> 254
<212> nucleic acid
<213> Glycine max

<400> 1635

gggtttctct ttctctttct ctgactgctt cttcactttc tctcgttgca atcgaaaaaa 60
atcatgggca gaaaattctt cgtcgggtggc aactggaaat gcaatgggac cactgaggag 120
gtgaagcaga ttgttactac tttaaatgaa gctaaagtcc ctggagaaga tgtttagtagac 180
gttggtgtga gccctccttt tgtgttcctt ctttttgtaa aaagtttgct gcgccctgat 240
ttccatgtct cgga 254

<210> 1636
<211> 234
<212> nucleic acid
<213> Glycine max

<400> 1636

tacggctgcy agaagacgac agaagggggc agttgtattg ttgaacaagg gtttctctgt 60
ctgcttcttc actttctctc gtttcaatcg aaacaaaaac aaaaacatgg gcagaaaatt 120
cttcgtcggg ggcaactgga aatgcaatgg gaccactgag gaggtaaaga agattgttac 180

tactttgaat gaggctaaag tccttgaga agatgtcgta gaagttgttg tgag 234

<210> 1637
<211> 193
<212> nucleic acid
<213> Glycine max

<400> 1637

gtttctcttt ctctttctct gtctgtctct tcactttctc tcgtttcaat cgaaaaaat 60
catgggcaga aaattcttcg tcggtggcaa ctggaaatgc aatgggacca ctgaggaggt 120
gaagaagatt gttactactt taaatgaagc taaagtcctt ggagaagatg ccgtagaagt 180
tggtgtgagc cct 193

<210> 1638
<211> 300
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (211)
<223>

<400> 1638

acggctgcga gaagacgaca gaaggggaca cgcagttgta ttgtagaact gaacaagggt 60
ttctctttct ctttctctgt ctgtctcttc actttctctc gtttcaatcg aaaaaaatca 120
tgggcagaaa attcttcgtc ggtggcaact ggaaatgcaa tgggaccact gaggaggtga 180
agaagattgt tactacttta aatgaagcta nagtccttgg agaagatgtt gtagaagttg 240
ttgtgagcct ccttttgtgt tcttcctttt gtaaaaattg ctgcgcctga ttccagtctc 300

<210> 1639
<211> 240
<212> nucleic acid
<213> Glycine max

<400> 1639

aggctgtatt gtagaactga acaagggttt ctctttctct ttctctgtct gcttcttcac 60
tttctctcgt ttcaatcgaa aaaaatcatg ggcagaaaat tcttcgtcgg tggcaactgg 120

aaatgcaatg ggaccactga ggaggtgaag aagattgtta ctactttaaa tgaagctaaa 180
gtccctggag aagatgttgt agaagttgtt gtgagcctcc ttttgtgttc cttcttttgt 240

<210> 1640
<211> 278
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (233)
<223>

<400> 1640

ctgaacaagg gtttctcttt ctctttctct gtctgcctct tcactttctc tcgtttcaat 60
cgaaaaaatc atgggcagaa aattcttccg tcggtggcaa ctggaaatgc aatgggacca 120
ctgaggaggt gaagaagatt gttatacttt aaatgaagct aaagtccctg gagaagatgt 180
tgtagaagtt gttgtgagcc ctccctttgt gttccttcct ttgtaaaaag ttngctgcgc 240
cctgatttcc atgtctcggc ccaaaattgt tgggttcg 278

<210> 1641
<211> 263
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (94), (107), (115), (149), (157), (172), (191), (211), (216)
<223> unsure at all n locations

<400> 1641

gttgaacaag ggtttctctg tctgcttctt cactttctct cgtttcaatc gaaacaaaaa 60
caaaaacatg ggcagaaaat tattcgctcg tggnaactgg aaatgcnatg ggacnactga 120
ggaggtaaag aagattgtta ctactttgna tgaggcnaaa gtccctggag angatgtcgt 180
agaagttgtt ntgaggcctc cttttgtgtt ncttcnccgt tgtaaaaaagt ttgctgcgcc 240
ctgatttcca tgtttcggca caa 263

<210> 1642
<211> 238
<212> nucleic acid

<210> 1645
 <211> 250
 <212> nucleic acid
 <213> Glycine max

 <400> 1645

 ctacagctgg ggactcgcag ttgtattgtt gaacaagggt ttctctgtct gcttcttcac 60
 tttctctcgt ttcaatcgaa accaaaacaa aaacatgggc agaaaattct tcgtctgtgg 120
 caactggaaa tgcaatggga ccaactgagga ggtaaagaag attgttacta ctttgaatga 180
 ggctaaagtc cctggagaag atgtcgtaga agttgttgtg agccctcttt tgtgttcctc 240
 ctgttgtaaa 250

<210> 1646
 <211> 264
 <212> nucleic acid
 <213> Glycine max

 <400> 1646

 acggctgcga gaagacgaca gaaggggact cgcagttgta ttgttgaaca aggggttctc 60
 tgtctgcttc ttcactttct ctcgtttcaa tcgaaaccaa aacaaaaaca tgggcagaaa 120
 attcttcgtc ggtggcaact ggaaatgcaa tgggaccact gaggaggtaa agaagattgt 180
 tactactttg aatgaggcta aagtcctgga agaagatgtc gtagaagttg ttgtgagccc 240
 tccttttgtg ttcttctctg ttgt 264

<210> 1647
 <211> 267
 <212> nucleic acid
 <213> Glycine max

 <400> 1647

 gtagtactga tcaagggtgt ctgtttctat gtctctgtgt gtttcgtcac tttctctcgt 60
 ttcaatcgaa aaagatcatg ggtagaagat tagtcgtcgg tggcaactgg aaatgcaatg 120
 ggaccactga ggaggtgaag aagattgtta ctactttaaa tgaggctaaa gtccctggag 180
 aagatgttgt tgaagttgtt gtgagccgcc ttttgtgttc ctccttttgt agaggtttgc 240
 tgcgcctgga ttcccatgtc tcggccc 267

<210> 1648
 <211> 238
 <212> nucleic acid
 <213> Glycine max

<400> 1648

gtagaactga acaagggttt ctctttctct ttctctgtct gcttcttcac tttctctcgt 60
 ttcaatcgaa aaaaatcatg ggcagaaaat tcttcgtcgg tggcaactgg aaatgcaatg 120
 ggaccactga ggaggtgaag aagattgtta ctactttaaa tgaagctaaa gtccctggag 180
 aagatgttgt agaagttgtt gtgagcctcc ttttgtgttc cttcctttgt aaaaagtt 238

<210> 1649
 <211> 273
 <212> nucleic acid
 <213> Glycine max

<400> 1649

gaacaagggt ttctctttct ctttctctgt ctgcttcttc actttctctc gtttcaatcg 60
 aaaaaaatca tgggcagaaa attcttcgtc ggtggcaact ggaaatgcaa tgggaccact 120
 gaggaggtga agcagattgt tactacttta aatgaagcta cagtccctgg agaagatgtt 180
 gtagaagttg ttgtgagccc tccttttctg ttcttctctt ttgtaaaaag tttgctgcgc 240
 cctgatttcc atgtctcggc ccaaaattgt tgg 273

<210> 1650
 <211> 240
 <212> nucleic acid
 <213> Glycine max

<400> 1650

acggctgcga gaagacgaca gaaggggact cgcagttgta ttgttgaaca agggtttctc 60
 tgtctgcttc ttcactttct ctggtttcaa tcgaaaccaa aacaaaaaca tgggcagaaa 120
 attcttcgtc ggtggcaact ggaaatgcaa tgggaccact gaggaggtta agaagattgt 180
 tactactttg aatgaggcta aagtcctcgg aagagatgtc gtagaagttg ttgtgagccc 240

<210> 1651
 <211> 252
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (41)...(42)
 <223> unsure at all n locations

 <400> 1651

 gcgcattatt ataaagagtg ataaggttgt ttggacggtc nntcgcagtt gtattgttga 60
 acaaggggttt ctctgtctgc ttcttcactt tctctcggtt caatcgaaac caaaacaaaa 120
 acatgggcag aaaattcttc gtcggtggca actggaaatg caatgggacc actgaggagg 180
 taaagaagat tgttactact ttgaatgagg ctaaagtccc ggagaagatg tcgtagaagt 240
 tgttgtgagc cc 252

<210> 1652
 <211> 274
 <212> nucleic acid
 <213> Glycine max

 <400> 1652

 gtagaactga acaaggggttt ctctttctct ttctctgtct gcttcttcac tttctctcgt 60
 ttcaatcgaa aaaaatcatg ggcagaaaat tcttcgtcgg tggcaactgg aaatgcaatg 120
 ggaccactga ggaggtgaag aagattgtta ctactttaaa tgaagctaaa gccctggag 180
 aagatgttgt agaagttgtt gtgagccctc cttttgtgtt ccttcctttt gtaaaaaagt 240
 tgctgcgcgc tgatttccat gtctcgcccc aaaa 274

<210> 1653
 <211> 185
 <212> nucleic acid
 <213> Glycine max

 <400> 1653

 gttgaacaag ggtttctctg tctgcttctt cactttctct cgtttcaatc gaaaccaaaa 60
 caaatcatg ggcagaaaat tcttcgttgg tggcaactgg aaatgcaatg ggaccactga 120
 ggaggtaaag aagattgtta ctactttgaa tgaggctaaa gtccctggag aagatgtcgt 180
 agaag 185

<210> 1654

<211> 215
<212> nucleic acid
<213> Glycine max

<400> 1654

gcttctttcac tttctctcgt ttcaatcgaa aaaaatcatg ggcagaaaaat tcttcgtcgg 60
tggcaactgg aaatgcaatg ggaccactga ggaggtgaag aagattgtta ctactttaaa 120
tgaagcgtaa gtcgctggag gagaatgtgt agaagtgggt gtgagcctcc tttttgtgtc 180
cttccttttt taaaaaattt gctggggcct gatatt 215

<210> 1655
<211> 266
<212> nucleic acid
<213> Glycine max

<400> 1655

gaggaaactg caaagaattg gcagcacagc ccgatgttga tggatttttg gttggtggtg 60
catccctcaa ggcggaattt gtggacatca taaacgctgc tactgtgaag aagaattgaa 120
attcgtagtt aggaactgat aatgctgcct ttcaagctgc ttcggaaatt gctgtttttg 180
agttttgggt ctgtgctttg tggccaatgt attgaactct gtttagtacc tgaataaaca 240
tgctttcctt tgatctcatc catagg 266

<210> 1656
<211> 248
<212> nucleic acid
<213> Glycine max

<400> 1656

cgaaactgca aagaattggc agcacagccc gatgttgatg gatttttgggt tgggtggtgca 60
tccctcaagg cggaatttgt ggacatcata aacgctgcta ctgtgaagaa gaattgaaat 120
tcgtagttag gaactgataa tgctgccttt caagctgctt cggaaattgc tgtttttgag 180
ttttggttct gtgctttgtg gccaatgtat tgaactctgt ttagtacctg aataaacatg 240
ctttcctt 248

<210> 1657
<211> 254
<212> nucleic acid

<213> Glycine max

<400> 1657

aaagaattgg cagcacagcc cgatgttgat ggatttttgg ttggtggtgc atccctcaag 60
gcggaatttg tggacatcat aaacgctgct actgtgaaga agaattgaaa ttcgtagtta 120
ggaactgata tgctgccttt caagctgctt cggaaattgc tgtttttgag ttttggttct 180
gtgctttgtg gccaatgtat tgaactctgt ttagtacctg aataaacatg ctttcctttg 240
atctcatcca tagg 254

<210> 1658

<211> 225

<212> nucleic acid

<213> Glycine max

<400> 1658

aaagaattgg cagcacagcc cgatgttgat ggatttttgg ttggtggtgc atccctcaag 60
gcggaatttg tggacatcat aaacgctgct actgtgaaga agaattgaaa ttcgtagtta 120
ggaactgata atgtgccttt tcaagctgct tcggaaattg ctgtttttga gttttggttc 180
tgtgctttgt ggccaatgta ttgaactctg ttagtacct gaata 225

<210> 1659

<211> 258

<212> nucleic acid

<213> Glycine max

<400> 1659

aaagaattgg cagcacagcc cgatgttgat ggatttttgg ttggtggtgc atcactcaag 60
gcggaatttg tggacatcat aaacgctgct actgtgaaga agaattgaaa ttcgtagtta 120
ggaactgata atctgccttt caagctgctt cggaaattgc tgtttttgag ttttggttct 180
gtgctttgtg gccaatgtat tgaactctgt ttagtacctg aataaacatg ctttcctttg 240
atctcatcca taggcgat 258

<210> 1660

<211> 145

<212> nucleic acid

<213> Glycine max

<400> 1660
 gaaaattcctt cgtcgggtggc aactggaaat gcaatgggac cactgaggag gtaaagaaga 60
 ttgttactac tttgaatgag gctaaagtcc ctggagaaga tgtcgtagaa gttgttgtga 120
 gccctccttt tgtgttcctt cctgt 145

<210> 1661
 <211> 180
 <212> nucleic acid
 <213> Glycine max

<400> 1661
 agaaaagggg tttctctgtct gcttcttcac tttctctcgt ttcaatcgaa accaaaacaa 60
 aaacatgggc agaaaattct tcgtcgggtgg caactggaaa tgcaatggga cactgagga 120
 ggtaaagaag attgttacta ctttgaatga ggctaaagtc cctggagaag atgtcgtaga 180

<210> 1662
 <211> 98
 <212> nucleic acid
 <213> Glycine max

<400> 1662
 ttgttttggc ctacgagcca gtttgggcca ttggaacagg aaagggttgc actcctgctc 60
 aggctcaaga ggggtccatgc tgatttgagg aaatgggt 98

<210> 1663
 <211> 147
 <212> nucleic acid
 <213> Glycine max

<400> 1663
 gctcgagggt tctctttctc tttctctgtc tgcttcttca ctttctctcg tttcaatcga 60
 aaaaaatcat gggcagaaaa ttcttcgtcg gtggcaactg gaaatgcaat gggaccactg 120
 aggaggtgaa gaagattgtt actactt 147

<210> 1664
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (9), (15), (49), (54), (132), (134) ... (135), (151),
 (178) ... (179), (212), (239), (255), (264)
 <223> unsure at all n locations

 <400> 1664

 gtttctctnt ctctntctct gtctgcttct tcactttctc tcgtttcant cganaaaaaat 60
 catgggcaga aaattctcgt cgggtggcaac tggaaatgca atgggaccac tgaggaggtg 120
 aagaagattg tngnnactta aattgaagcc naaatccctc tggggaaatg ttgtagannt 180
 tgttgtgagc cctccttttg tgttccttcc tntgtaaaaa gtttgctgcg ccctgattnc 240
 cagtctcggg ccanaaatgg tggng 265

<210> 1665
 <211> 162
 <212> nucleic acid
 <213> Glycine max

 <400> 1665

 aactgaacaa gggtttctct ttctctttct ctgtctgctt cttcactttc tctcgtttca 60
 atcgaaaaaa atcatgggca gaaaattctt cgtcggtggc aactggaaat gcaatgggac 120
 cactgaggag gtgaagaaga ttgttactac tttaaataaa gc 162

<210> 1666
 <211> 150
 <212> nucleic acid
 <213> Glycine max

 <400> 1666

 cgaacaaggg tttctctttc tctttctctg tctgcttctt cactttctct cgtttcaatc 60
 gaaaaaaatc atgggcagaa aattcttcgt cgggtggcaac tggaaatgca atgggaccac 120
 tgaggaggtg aagaagattg ttactacttt 150

<210> 1667
 <211> 263
 <212> nucleic acid
 <213> Glycine max

 <400> 1667

<400> 1670
 cttattggag anaatgatga gtttataggg aaganagctg cctatgcttt gagccaaggt 60
 cttgggggtga ttgcatgcat tggagacttg ttagaagaaa gggaggctgg aaaaactact 120
 gatgtttgtn ttcagcaatt gaaggcttat gcagacgcag ttgctagtgt ggacaacatt 180
 gttattgcat atgaacctgt atggggccatt ggaacgggca aagtcgccac tccccaacaa 240
 gctcaggaag tacatgtagc tggtcgggat t 271

<210> 1671
 <211> 322
 <212> nucleic acid
 <213> Glycine max

<400> 1671
 cttcgatggc ggcaacctca acatcactgg cttctcaact ctacattggc ctgcgccgcc 60
 cctgcctcaa gctcgattct ttcaattctc aatctttctc tctcttcgac cctaattctc 120
 gctatccct ctctccacc aaacctcac gcgcggtcat cgccatggcc ggcaccggga 180
 agttctttgt tgggtggcaac tggaagtgt acggaacaaa agactcaatc agcaagcttg 240
 ttgctgactt gaacaatgca aaattggagc ctgatgttga tgttgctgtt gcacctccct 300
 tcctctacat cgatcaagtg aa 322

<210> 1672
 <211> 249
 <212> nucleic acid
 <213> Glycine max

<400> 1672
 gcaacctcaa catcactggc ttctcaactc tacattggcc tgcgccgcc ctgcctcaag 60
 ctcgattctt tcaattctca atctttctct ctcttcgacc ctaattctcg cctatccctc 120
 tctccacca aacctcacg cgccgtcatc gccatggcgg gcaccgggaa gttctttgtt 180
 ggtggcaact ggaagtgtaa cggaacaaaa gactcaatca gcaagcttgt tgctgacttg 240
 aacaatgca 249

<210> 1673
 <211> 257

<212> nucleic acid
<213> Glycine max

<400> 1673

ggcaacctca acatcaactgg cttctcaact ctacattggc ctgcgcgcc cctgcctcaa 60
gctcgattct ttcaattctc aatctttctc tctcttcgac cctaattctc gcctatccct 120
ctctccaccc aaacctcac gcgcggtcat cgccatggcc ggcaccggga agttctttgt 180
tggtggcaac tggaagtgtg acggaacaaa agactcaatc agcaagcttg ttgctgactt 240
gaacaatgca aaattgg 257

<210> 1674
<211> 275
<212> nucleic acid
<213> Glycine max

<400> 1674

gtttttgttc ttcgatggcg gcaacctcaa catcaactggc ttctcaactc tacattggcc 60
tgcgcgcgcc ctgcctcaag ctcgattctt tcaattctca atctttctct ctcttcgacc 120
ctaattcttcg cctatccctc tctccaccca aacctcacg cgccgtcatc gccatggccg 180
gcaccgggaa gttctttgtt ggtggcaact ggaagtgtaa cgggaacaaa agactcaatc 240
agcaagcttg ttgctgactt gaacaatgca aaatt 275

<210> 1675
<211> 287
<212> nucleic acid
<213> Glycine max

<400> 1675

ctgtgttctt gtttttgttc ttcgatggcg gcaacctcaa catcaactggc ttctcaactc 60
tacattggcc tgcgcgcgcc ctgcctcaag ctcgattctt tcaattctca atctttctct 120
ctcttcgacc ctaattcttcg cctatccctc tctccaccca aacctcacg cgccgtcatc 180
gccatggccg gcaccgggaa gttctttgtt ggtggcaact ggaagtgtaa cgggaacaaaa 240
gactcaatca gcaagcttgt tgctgacttg aacaatgcaa aattgga 287

<210> 1676
<211> 272

<212> nucleic acid
 <213> Glycine max

 <220>
 <221> unsure
 <222> (122), (149), (235)
 <223> unsure at all n locations

 <400> 1676

 gatggcggca acctcaacat cactgggctt ctcaactcta cattggcctg gcgccgcccc 60
 tgccctcaagc tcgattcttt caattctcaa tctttctctc tcttcgaccc taatcttcgc 120
 cnatccctct ctccacccaa accctcacna caccgtcatc gccatggccg gcaccgggaa 180
 gttctttgtt ggtggcaact ggaagtgtaa cggaacaaaa gactcaatca gcaancttgt 240
 tgctgacttg aacaatgcaa aattggagcc tg 272

<210> 1677
 <211> 287
 <212> nucleic acid
 <213> Glycine max

 <220>
 <221> unsure
 <222> (118), (233)
 <223> unsure at all n locations

 <400> 1677

 ctgtgttctt gtttttgttc ttgatggcg gcaacctcaa catcactggc ttctcaactc 60
 tacattggcc tgcgccgcc ctgcctcaag ctgcattctt tcaattctca atctttcnct 120
 ctcttcgacc ctaatcttcg cctatccctc tctccacca aaccctcacg cgccgtcatc 180
 gccatggccg gcaccgggaa gttctttgtt ggtggcaact ggaagtgtaa cgnaacaaaa 240
 gactcaatca gcaagcttgt tgctgacttg aacaatgcaa aattgga 287

<210> 1678
 <211> 274
 <212> nucleic acid
 <213> Glycine max

 <400> 1678

 tgtttttgtt cttgatggc ggcaacctca acatcactgg cttctcaact ctacattggc 60
 ctgcgccgcc cctgcctcaa gctgcattct ttcaattctc aatctttctc tctcttcgac 120

cctaattcttc gcctatccct ctctccaccc aaacctcac gcgccgtcat cgccatggcc 180
 ggcaaccggga agttctttgt tgggtggcaac tgggaagtgt acggaacaaa agactcaatc 240
 agcaagcttg ttgtgcttg acatgcaaat ggag 274

<210> 1679
 <211> 247
 <212> nucleic acid
 <213> Glycine max
 <220>
 <221> unsure
 <222> (17), (51)
 <223> unsure at all n locations
 <400> 1679

ctgtgttctt gttttnttc ttcatggcg gcaacctcaa catcactgga ntctcaactc 60
 tacattggcc tgcgccgcc ctgtctcaag ctcatctct tcaattctca atctttctct 120
 ctcttcgacc ctaattctcg cctatccctc tctccacca aacctcacg cgccgtcatc 180
 gccatggccg gcaccgggaa gttctttgtt ggtggcaatg gaagtgtaac gcaacaaaag 240
 actcaat 247

<210> 1680
 <211> 241
 <212> nucleic acid
 <213> Glycine max
 <400> 1680

gttctgtttt ttgttcttcg atggcggcaa cctcaacatc actggcttct caactctaca 60
 ttggcctgcg ccgccctgc ctcaagctcg attctttcaa ttctcaatct ttctctctct 120
 tcgaccctaa tcttcgcta tccctctct caccctaac ctcacgcgcc gtcacgcca 180
 tggccggcac cgggaagttc ttgttggtg gcaactggaa gtgtaaggaa caaaagactc 240
 a 241

<210> 1681
 <211> 253
 <212> nucleic acid
 <213> Glycine max

tgtacatcga tcaggtgaaa aactcaatta cagataggat tgaaatttct gcccagaatt 120
cttgggtggg aaaaggtggg gctttcacgg gagaaatcag tgtggagcaa ctaaaagacc 180
ttggctgcaa gtgggtta 198

<210>	1685
<211>	282
<212>	nucleic acid
<213>	Glycine max

ctcaattaca	gataggattc	agattttcac	ctgatcgatg	tacacaaagg	gaggtgcaac	60
aacaacatca	acatcagact	ccactgttgc	acctcccttt	gtgtacatcg	atcaggtgaa	120
aaactcaatt	acagatagga	ttgaacttct	gcccagaatt	cttgggtggg	aaaaggtggg	180
gctttcacgg	gagaaatcag	attggagcaa	ctaaaagacc	ttggctgcaa	gtgggctatt	240
cttggacatt	ctgagcgcag	acatgtaatt	ggagcaaattg	at		282

<400> 1686

ctttctcttt	ctctgtctgc	ttcttcactt	tctctcgttg	gaatcgaaaa	aatcatggg	60
cagaaaattc	ttcgtcggtg	gcaactggaa	atgcaatggg	accactgagg	aggatgaaga	120
gattgttact	actttaaatg	aagctaaagt	ccctggagaa	gatgttgtag	aagttgttgt	180
gagccctcct	tttgtgttcc	ttccttttgt	aaaaagtttg	ctgcgcctg	atttccatgt	240
ctcggcccaa	aattgttggg	ttcgcaaagg	tggtgcttat	actggagagg	ttagtgctga	300
aatgcttggt	aatttgggaa	ttccttgggg	tattattggg	cactctgaac	ggaggcagct	360
tttgaatgaa	tcaaatg					377

<210>	1687
<211>	426
<212>	nucleic acid
<213>	Glycine max

<400> 1687

The first two terms in the sum are the same as in the previous case, but the third term is different. It is now the sum of the squares of the first two terms, which is $2\alpha^2$.

<400> 1690

<400> 1691

593

The first two steps of the process are to identify the problem and to define the problem. The third step is to identify the causes of the problem. The fourth step is to identify the effects of the problem. The fifth step is to identify the stakeholders who are affected by the problem. The sixth step is to identify the resources that are available to solve the problem. The seventh step is to identify the constraints that may limit the solution. The eighth step is to identify the risks that may be associated with the solution. The ninth step is to identify the opportunities that may be associated with the solution. The tenth step is to identify the lessons learned from the process.

ccggctcgac	ccacgagtaa	gcccacgcgt	ccgacggctg	cgagaagacg	acagaagggg	60
attgtagaac	tgaacaaggg	tttctctttc	tctttctctg	tctgcttctt	cactttctct	120
cgtttcaatc	gaaaaaaatc	atgggcagaa	aattcttcgt	cggtggcaac	tggaaatgca	180
atggggaccac	tgaggaggtg	aagaagattg	ttactacttt	aatgaagct	aaagtccttg	240
gagaagatgt	tgtagaagtt	gttgtgagcc	ctccttttgt	gttccttcct	tttgtaaaaa	300
gtttgctgcg	ccctgatttc	catgtctcgg	cccaaaattg	ttgggttcgc	aaagggtggtg	360
cttatac						367

<400>	1693
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agacggctgc	gagaagacga	cagaaggggg	cagttgtatt	gttgaacaag	ggtttctctg	60
tctgcttctt	cactttctct	cgtttcaatc	gaaacaaaa	caaaaacatg	ggcagaaaat	120
tcttcgtcgg	tggcaactgg	aaatgcaatg	ggaccactga	ggaggtaaag	aagattgtta	180
ctactttgaa	tgaggctaaa	gtccctggag	aagatgtcgt	agaagttggt	gtgagccctc	240
cttttgtggt	ccttcctggt	gtaaaaagtt	tgctgcgccc	tgatttccat	gtttcggcac	300
aaaactgttg	ggttcgcaaa	ggtggtgctt	ataccggtga	ggttagtgct	gaaatgcttg	360
ttaatttggg	a					371

<400>	1694
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594

[illegible]

```
<220>
<221>      unsure
<222>      (244)
<223>
```

gggccgagcc	acgcgtccat	acggatgcga	gaagacgaca	gaagggggta	ttgtagaact	60
gaacaagggt	ttctctttct	ctttctctgt	ctgcttcttc	actttctctc	gtttcaatcg	120
aaaaaaatca	tgggcagaaa	attcttcgtc	ggtggcaact	ggaaatgcaa	tgggaccact	180
gaggaggtga	agaagattgt	tactacttta	aatgaagcta	aagtcctctg	agaagatggt	240
gtanaagttg	ttgtgagccc	tccttttgtg	ttccttcctt	ttgtaaaaag	tttgctgcgc	300
cctgatttcc	atgtctcggc	ccaaaattgt	tgggttcgca	aagggtggtgc	ttatactgga	360
gaagttagtg	ctgaaatgct	tggt				384

<400>	1696
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595

ggaacaggaa aggttgctac tctgtctcag gctcaagagg tccatgctga tttgaggaaa 240
tgggttcattg acaatgtgag tgctg 265

<210> 1697
<211> 421
<212> nucleic acid
<213> Glycine max

<400> 1697

gttcgcaaag gtggtgctta tactggagag gttagtctg gaatgcttgt taattgggga 60
attccttggg ttattattgg tcaactctgaa cggaggcagc ttttgaatga atcaaatgag 120
tttgtgggag ataaagttgc ctatgcactt caacaaggtc tgaaagttat agcatgcatt 180
ggggaaactc ttgaacagcg tgaagctggt acaacaacgg ctgttggtgc tgagcaaaca 240
aaagcaattg cagctaaaat atcaaatgg gacaatgtcg ttttggccta tgagccagtt 300
tggggcattg gaacaggaaa gggtgcaact cctgtctatg ctcaagaggt tcatgctgat 360
ttaaggaaat ggggttcattg caatgtgagt gctgaagttg ctgcatctgt aagaattatc 420
t 421

<210> 1698
<211> 325
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (179)
<223>

<400> 1698

acgaccacgc gtccgtacgg ctgcgagaag acgacagaag gggactcgca gttgtattgt 60
tgaacaaggg tttctctgtc tgcttcttca ctttctctcg tttcaatcga aacaaaaaca 120
aaaacatggg cagaaaattc ttctgtcggg gcaactggaa atgcaatggg accactgang 180
aggtaaagaa gattgttact actttgaatg aggctaaagt ccctggagaa gatgtcgtag 240
aagttgttgt gagccctcct tttgtgttcc ttcctgtcgt aaaaagtttg ctgcgccctg 300
atttccatgt ttccgcacaa aactg 325

<210> 1699
 <211> 393
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (258)
 <223>

<400> 1699

aaaagacgac agaaagggaa tcccaatttg aatgggtaac aaaggggttcc ccggccggct 60
 cctcaacttc cccccgttcc aaccaaacc aaacaaaaat catgggcaaa aaatcctccg 120
 ccggtggcaa ctggaaatgc aatgggacca ctgaagaggt aaagaaaatt gttactactt 180
 tgaatgacgc taaagtccct ggagaagatg tcgtagaagt tgttgtgagc cctccttttg 240
 tggtccttcc tgttgtanaa agtttgctgc gccctgattc ccatgtttcg gcacaaaact 300
 gttgggttcg caaaagtggg gcttataccg gtgagggttag tgctgaaatg cttgttaatt 360
 tgggaattcc ttgggttatt attggtcact ctg 393

<210> 1700
 <211> 300
 <212> nucleic acid
 <213> Glycine max

<400> 1700

tacggctgcg agaagacgac agaaggggac tcgcagttgt attgttgaac aagggtttct 60
 ctgtctgctt cttcactttc tctcgtttca atcgaaacca aaacaaaaaac atgggcagaa 120
 aattcttcgt cgggtggcaac tggaaatgca atgggaccac tggggaggta aagaagattg 180
 ttactacttt gaatgaggct aaagtccctg gagaagatgt cgtacaagtt gttgtgagcc 240
 ctcccttttg gttccttcct gttgtaaaaa gtttgctgcg ccctgatttc catgtttcgg 300

<210> 1701
 <211> 234
 <212> nucleic acid
 <213> Glycine max

<400> 1701

agtacggctg cgagaagacg acagaagggg attgtagaac tgaacaaggg tttctctttc 60

cccaggcgtc cgtagcggtg cgagaggacg acagaagggg gcagttgtat tgttgaacaa 60
 gggtttcgct gtctgcttct tcactttctc tcgtttcaat cgaaacgaaa acaaaaaacat 120
 gggcagaaaa ttcttcgctg gtggcaactg gaaatgcaat gggaccactg aggaggtaaa 180
 gaagattgtt acgactttga atgaggcgaa agtccctgga gaagatatcg tacaagttgt 240
 tgtgagccct ccttttgtgt tccttctgtg gggtaaaagt ttgctgcgcc c 291

<210> 1705
 <211> 312
 <212> nucleic acid
 <213> Glycine max

<400> 1705

tgaacaaggg tttctctttc tctttctctg tctgcttctt cactttctct cgtttcaatc 60
 gagggaaatc atgggcagaa aattcttcgt cggtggcaac tggaaatgca atgggaccac 120
 tgatgaggtg aagaagattg ttactacttt aaatgaagct aaagtccctg gagaagatgt 180
 tgtagaagtt gttgtgagca ctcttttctg gttccttccg tttgtaaaaa gtttgcgcgc 240
 ccctgatttc catgtctcgg cccaaaattg ttgggtacgc ataggatgat cttagactgg 300
 agaagttagt gc 312

<210> 1706
 <211> 395
 <212> nucleic acid
 <213> Glycine max

<400> 1706

agtacggctg cgagaagacg acagaagggg atgagtttat agggaagaaa gctgcctatg 60
 ctttgagcca aggtcttggg gtgattgcat gcattggaga attgttagaa gaaagggagg 120
 ctggaaaaac ttttgatgtt tgttttcagc aattgaaggc ttatgcagac gcagttgcta 180
 gttgggacaa cattgttatt gcatatgaac ctgtatgggc cattggaacg ggcaaagtgg 240
 ccactcccca acaagctcag gaagtacatg tagctgttcg ggattggcta aaaaagaatg 300
 tctcagatga agttgcgtct aaaacacgaa ttatttatgg agggctctgta aatggaggca 360
 acagtgcgtg actggcaaag caagaagata ttgat 395

<210> 1707

<211> 403
 <212> nucleic acid
 <213> Glycine max

 <400> 1707

 agtacggctg cgagaagacg acagaagggg atgagtttat agggaagaaa gctgcctatg 60
 ctttgagcca aggtcttggg gtgattgcat gcattggaga attgttagaa gaaagggagg 120
 ctggaaaaac ttttgatgtt tgttttcagc aattgaaggc ttatgcagac gcagttgcta 180
 gttgggacaa cattgttatt gcatatgaac ctgtatgggc cattggaacg ggcaaagtgg 240
 ccaactcccca acaagctcag gaagtacatg tagctgttcg ggattggcta aaaaagaatg 300
 tctcagatga agttgcgtct aaaacacgaa ttatttatgg agggctctgta aatggaagca 360
 acagtgtgta actggcaaag caagaagata ttgatggatt tct 403

<210> 1708
 <211> 254
 <212> nucleic acid
 <213> Glycine max

 <220>
 <221> unsure
 <222> (22), (28), (40), (51), (63), (72) ... (73), (78), (81), (85),
 (99), (102) ... (103), (164), (167), (215), (220),
 (233) ... (234), (239), (253)
 <223> unsure at all n locations

 <400> 1708

cttttcttct ctctcaacaa cntcaccngt cttcctcctn gatcatgtcc nacttcaagg 60
 gcnagtacca tnntgagntg ntctnctatg ctgcgtacnt cnncactcct ggaaagggta 120
 tttcttgctg ctgacgagtc aacagggaca acgggcaagc gttnggncag catcagagta 180
 gagaacattg aatccaacag gcgagctctt agggngcagn ctttcactgc ccnngtgtnc 240
 ttcaatatct cant 254

<210> 1709
 <211> 283
 <212> nucleic acid
 <213> Glycine max

 <220>
 <221> unsure
 <222> (50)

<223>

<400> 1709

tcacatgttc ctaatagcca ccatgtcttc cttcaagcgc acattctcan atgagttgat 60
tgccagtgt acttatattg gcaccccagg acttggtatg cttgcagctg atgagttaac 120
cggcacaatt gggaaacgtt tggcgagctt caacgtggag aatgttgaaa cgaacaggcg 180
cattcttcgt gagctcctat tcaactgtcc cggttgtctt gagtgcctca gtggtgtcat 240
cttgtttgag gaaaccctct accaaatatc agctgcagga gta 283

<210> 1710

<211> 268

<212> nucleic acid

<213> Glycine max

<400> 1710

tcaagcctag cgtctctcaa ctcaacaatg ggtcttcttg acatcgtgca gccaggcgtc 60
ctcaacggtg gggacgtcat gaaggtgtac aaatatgtc aggagcacia gtttgccatc 120
ccggccgtga acgtgacatc gtcgtcgacg acgaatgccg ctctgcaggc cgcccgcgac 180
atcaagtcgc ccatcatcat ccagacatca aatggcgggc cgccttcta cgctggcaaa 240
ggtattgaca acaagaacca gaacgcct 268

<210> 1711

<211> 261

<212> nucleic acid

<213> Glycine max

<400> 1711

ggacgagaac atccccaagg cgcaaagcgc gttgctggtg aggtgcaagg cgaattctga 60
ggctactctt ggaacttaca agggggatgc cacgcttggg gaaggggctt ctgagtctct 120
tcatgttaag gattataagt actaagagag aggtgtgaga ttggttcttt tggaatggaa 180
ttgtttgttt ctttgggcct gttttggata ttcaagagtg tttttcaaaa aatttctact 240
gaaaaggaaa gaaattctcc a 261

<210> 1712

<211> 277

<212> nucleic acid

[illegible]

<221> unsure

<223> unsure at all n locations

cnnatctaca agggtaactc acagcttnct gatggtgcct cagagagcct ccatgtttcg 60

aactacagct actgatcaat cgaagttggn gttgtttgna ganactagtg cgaagtaggan 120

tcqqtatnat gggtaacnaca accgnatttc ttgttgataa gtantatngt ggntngactc 180

ttcccnqaat natcgnttgg nattnacnqg atgttttncca gtgnncctnn atggccantt 240

agtcacccag ggtgttggtg aactggcaac cnggaag 277

<210> 1713

<211> 276

<212> nucleic acid

<213> Glycine max

<400> 1713

ctttaccagt cgacaacaga tqgaaataaa tttgtggatt gcctccgcga tcagaacatt 60

gtqcccggca tcaaagtta taagggtctg gtcctctctc caggggtcaaa caatgagtct 120

tggtgccaag ggctggatgg ttggcttcta ggtctgctga atactacaag caaggtgctc 180

gatttgccaa gtggaggaca gttgttagca ttccatgtgg tccttctgca ttagctgtcc 240

cqqaagcagc gtgqqggcctt gcacgttatg ctgcta 276

<210> 1714

<211> 256

<212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (83), (105), (107), (110) ... (111), (131), (137), (143), (147),
(151), (158)

<223> unsure at all n locations

<400> 1714

agttcccagt attaactgat catatactta catttggtga aggacagatt aaatttgaag 60

ataatgtgga tgaagtagtt tcncaaaatg gccacgcga cgttngnggn nttctagaac 120
 acacttcgtt ntgttcttct ctnttctntgg naagggtnnt cttgctgctg atgagtcaac 180
 agggacaatt ggcaagcgtt tgggcagcat cagtgtagag aacattgaat ccaacaggcg 240
 atctcttagg gagctg 256

<210> 1715
 <211> 191
 <212> nucleic acid
 <213> Glycine max
 <220>
 <221> unsure
 <222> (53), (101)
 <223> unsure at all n locations

<400> 1715
 ggctttatatt gccaggtgca atgcaaactc acatgcaact ttgggaactt acnaaggtga 60
 tgctaccctt gctgaggggtg cctccgagtc tctccatgtc naggactaca aataactaact 120
 aaaggtggtg acttcttttaa tttggagaat ttttgcacta ttggctacac cattctcatg 180
 ttcttctctc a 191

<210> 1716
 <211> 248
 <212> nucleic acid
 <213> Glycine max

<400> 1716
 tgcaatgcaa gctcacatgc aactttggga acttgcaaag gtggtgctac ccttgctgag 60
 ggtgcctctg agtctctcca tgtcaaggac tacaataact aactaaaggt gttgacttct 120
 ttttaatttgga agaatttttg cgtattggc tacaccattc tcatgttctt tccttcgtag 180
 aagttagact cggccgattt gctttctgct ctcgggtata ggatgtctac ggattgggggt 240
 gtaatcgc 248

<210> 1717
 <211> 263
 <212> nucleic acid
 <213> Glycine max

<400> 1717
acaccaaatt aacaaagcct tcttttttctt gtgtgatctc acaagcccct aaaggccacc 60
atgtcttctt tcaagagcaa attccaagat gagttgattg ccaatgctag ttacattggc 120
accccaggaa agggatatct tgctggctgac gagtcaacag ggacaattgg gaagcgtttg 180
gctgagcatca acgtggagaa tgttgaaaca aacaggcgca ttcttcgtga gctcctattc 240
actgcccctg gttgtcttga gcg 263

<210> 1718
<211> 258
<212> nucleic acid
<213> Glycine max

<400> 1718
cacaccaaatt taacaaagcc ttcttttttct tgtgtgatct cacaagcccc taaaggccac 60
catgtcttcc ttcaagagca aattccaaga tgagttgatt gccaatgcta gttacattgg 120
caccacagga aacggatatcc ttgctggctga cgagtcaaca gggacaattg ggaagcgttt 180
ggcgagcatc aacgtggaga atgttgaacc aaaaagggga atcctccgtg agctcctatt 240
cactgcccct gggtgtct 258

<210> 1719
<211> 337
<212> nucleic acid
<213> Glycine max

<400> 1719
ctcaagtcca acctaccct ttttcttctc ccaccaactt caccgtcttc ttctcgtac 60
atgtctcact tcaagggcaa gtaccatgat gagcttattg ccaatgctgc ttacattggc 120
actcctggaa agggatttct tgctgctgat gagtcaacag ggacaattgg caagcgtttg 180
gccagcatca gtgtagagaa tgttgaatcc aacaggcgctg ctcttaggga gctgcttttc 240
accgctcccg gtgctcttaa atatctcagt ggtgtcatcc tctttgagga aactctctac 300
cagagcacag ctgcaggcaa gccctttgtg gaagtct 337

<210> 1720
<211> 283
<212> nucleic acid

<213> Glycine max

<400> 1720

cctcgatcat gtctcacttc aagggcaagt accatgatga gcttatcgcc aatgctgcgt 60
acattggcac tcttggaag ggtattcttg ctgctgatga gtcaacaggg acaattggca 120
agcggttggc cagcatcagt gtagagaaca ttgaatccaa caggcgagct cttagggagc 180
tgcttttcac tgctcctggg gttcttcaat atctcagtgg tgtcatcctc tttgaggaaa 240
ccctctacca gagcacagct gcaggcaagc cctttgtgaa tgt 283

<210> 1721

<211> 382

<212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (351), (366)

<223> unsure at all n locations

<400> 1721

ctcccaccaa cttcacgctc ttcttctctg atcatgtctc acttcaaggg caagtaccat 60
gatgagctta ttgccaatgc tgcttacatt ggcaattcct ggaaagggat tcttgctgct 120
gatgagtcaa caggggacaat tggcaagcgt ttggccagca tcagtgtaga gaatgttgaa 180
tccaacaggc gtgctcttag ggagctgctt ttcaccgctc ccggtgctct taaatatctc 240
agtgggtgtca tcctctttga ggaaactctc taccagagca cagctgcagg caagcccttt 300
gtggaagtct tgaaggagct ggtgtgcttc tggcacaagg tgaccaaggc nagttgactt 360
ctggantaat ggagaaccac at 382

<210> 1722

<211> 314

<212> nucleic acid

<213> Glycine max

<400> 1722

aggagaatgg cctgggtccc attggtgagc ctgagatcct tgttgatgga cctcatgaca 60
ttcacaagtg tgccgcgctc accgagcgtg tccttgagc atgctacaag gctttgaatg 120
atcaccatgt ccttcttgag ggtaccctat tgaagccaaa catggtcacc cctggatccc 180

<400> 1725

gagaatgttg aatccaacag gcgtgctctt agggagctgc ttttcaccgc tcccgggtgct 60

cttaaataatc tcagtgggtgt catcctcttt gaggaactc tctaccagag cacagctgca 120

ggcaagccct ttgtggaagt cttgaaggag gctgggtgtgc ttcttggcat caagggttgac 180

aagggcanag ttgagcttgc tggcactaat ggagaaacca ccactcaggg tctagatggc 240

cttggtcagc gttgcgcaa gtactatgaa gccgggtgcac gttttgcc 288

<210> 1726

<211> 319

<212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (70), (80), (166), (197), (215), (313)

<223> unsure at all n locations

<400> 1726

gaacgcctat ggcttgcgct agttacgctg tcatatgccca ggagaatggc ctggttccca 60

ttgttgagcn tgagatcctn gttgatggac ctcatgacat tcacaagtgt gccgccgtca 120

ccgagcgtgt ccttgcagca tgcataaagg ctttgaatga tcaccntgtc cttcttgagg 180

gtaccctatt gaagccnaac atggtcaccc ctggntccca atctgctaag gtttcccctc 240

aggtgggttg cagacacact gtcagagccc ttcagagaac cgtgcctgct gcagttcctg 300

ctgtcgtttt ctngtctgg 319

<210> 1727

<211> 276

<212> nucleic acid

<213> Glycine max

<400> 1727

cttcaagggc aagtaccatg atgagcttat cgccaatgct gcgtacattg gcactcctgg 60

aaaggggtatt cttgctgctg atgagtcaac agggacaatt ggcaagcgtt tggccagcat 120

cagtgtagag aacattgaat ccaacaggcg agctcttagg gagctgcttt tcaactgctcc 180

tggtgttctt caatatctca gtgggtgcat cctctttgag gaaaccctct accagagaca 240

gctgcaggca agccctttgt gaatgtcttg aaggaa 276

<210> 1728
 <211> 263
 <212> nucleic acid
 <213> Glycine max

 <400> 1728

 cgagctctta gggagctgct ttctactgct cctgggtgttc ttcaatatct cagtgggtgtc 60
 atcctctttg aggaaaccct ctaccagagc acagctgcag gcaagccctt tgtgaatgtc 120
 ttgaaggaag ctgggtgtgct tcctggcatc aaggttgaca agggcacagt cgagcttgct 180
 ggaactaatg gagaaaccac cactcagggc ctagatggcc ttggtcagcg ttgtgccaag 240
 tactacgaag ctgggtgcacg ttt 263

<210> 1729
 <211> 285
 <212> nucleic acid
 <213> Glycine max

 <400> 1729

 tcaagggcaa gtaccatgat gagcttatcg ccaatgctgc gtacattggc actcctggaa 60
 agggatttct tgctgctgat gagtcaacag ggacaattgg caagcgtttg gccagcatca 120
 gtgtagagaa cattgaatcc aacaggcgag ctcttaggga gctgcttttc actgctcctg 180
 gtgttcttca atatctcagt ggtgtcatcc tctttgagga aaccctctac cagagcacag 240
 ctgcaggcaa gccctttgtg aatgtcttga aggaagctgg tgtgc 285

<210> 1730
 <211> 278
 <212> nucleic acid
 <213> Glycine max

 <400> 1730

 gggatttctt gctgctgatg agtcaacagg gacaattggc aagcgtttgg ccagcatcag 60
 tgtagagaat gttgaatcca acaggcgtgc tcttagggag ctgcttttca ccgctcccgg 120
 tgctcttaaa tatctcagtg gtgtcatcct ctttgaggaa actctctacc agagcacagc 180
 tgcaggcaag ccctttgtgg aagtcttgaa ggaggctggg gttcttcctg gcatcaaggt 240
 tgacaagggc acagttgagc ttgctggcac taatggag 278

<210> 1731
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<400> 1731

ctcttaggga gctgcttttc actgctcctg gtgttcttca atatctcagt ggtgtcatcc 60
 tctttgagga aacctctac cagagcacag ctgcaggcaa gccctttgtg aatgtcttga 120
 aggaagctgg tgtgcttctt ggcatcaagg ttgacaaggg cacagtcgag cttgctggaa 180
 ctaatggaga aaccaccact cagggcttag atggccttgg tcagcgttgt gccaaagtact 240
 acgaagctgg tgcacgtttt gccaa 265

<210> 1732
 <211> 264
 <212> nucleic acid
 <213> Glycine max

<400> 1732

cgatcatgtc tcaattcaag ggcaagtacc atgatgagct tattgccaat gctgcttaca 60
 ttggcactcc tggaaagggg attcttgctg ctgatgagtc aacagggaca attggcaagc 120
 gtttggccag catcagtgtg gagaatgttg aatccaacag gcgtgctctt agggagctgc 180
 ttttcaccgc tcccgggtgct cttaaataac tcagtgggtgt catcctcttt gagggaaactc 240
 tctaccagag cacagctgca ggca 264

<210> 1733
 <211> 349
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (123)
 <223>

<400> 1733

tctagatggc cttgggtcagc gttgtgccaa gtgctacgaa gctgggtgcac gttttgccaa 60
 atggcgtgca gtgctgaaga ttgggtccaa cgagccatct gagctgtcta tccatgagaa 120

cgncctatgg cttggctaga tacgtgtca tatgccagga gaatggcctg gttcccattg 180
 ttgagcctga gatccttggt gatggacctc atgacattca caagtgtgcc gccgtcacccg 240
 agcgtgtcct tgcagcatgc tacaaggctt gaatgatcac catgtccttc ttgaggggtac 300
 ctatgaagcc aaaccatggt caccctggat cccaatctgt aagggtccc 349

<210> 1734
 <211> 273
 <212> nucleic acid
 <213> Glycine max

<400> 1734

tgctgctgat gagtcaacag ggacaattgg caagcgtttg gccagcatca gtgtagagaa 60
 tgttgaatcc aacaggcgtg ctcttaggga gctgcttttc accgctcccg gtgctcttaa 120
 atatctcagt ggtgtcatcc tctttgagga aactctctac cagagcacag ctgcaggcaa 180
 gccctttgtg gaagtcttga aggaggctgg tgttcttcct ggcataaagg ttgacaaggg 240
 cacagttgag cttgctggca ctaatggaga aac 273

<210> 1735
 <211> 258
 <212> nucleic acid
 <213> Glycine max

<400> 1735

atcatgtctc acttcaaggg caagtaccat gatgagctta tcgccaatgc tgcgtacatt 60
 ggcactcctg gaaaggggtat tcttgctgct gatgagtcaa cagggacaat tggcaagcgt 120
 ttggccagca tcagtgtaga gaacattgaa tccaacaggc gagctcttag ggagctgctt 180
 ttcactgctc ctggtgttct tcaatattca gtggtgtcat cctctttgag gaaaccctct 240
 accagagtac agctgcag 258

<210> 1736
 <211> 267
 <212> nucleic acid
 <213> Glycine max

<400> 1736

cttcaagggc aagtaccatg atgagcttat cgccaatgct gcgtacattg gcaactcctgg 60

aaaggggtatt	cttgctgctg	atgagtcaac	agggacaatt	ggcaagcggt	tggccagcat	120
cagtgtagag	aacattgaat	ccaacaggcg	agctcttagg	gagctgcttt	tactgctcc	180
tgggtgttctt	caatatctca	gtggtgtcat	cctctttgag	gaaaccctct	accagagcac	240
agctgcaggc	aagccctttg	tgaatgt				267

<210>	1737
<211>	259
<212>	nucleic acid
<213>	Glycine max

<400>	1737
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ggcgagctct	tagggagctg	cttttcactg	ctcctggtgt	tcttcaatat	ctcagtgggtg	60
tcatcctctt	tgaggaaaacc	ctctaccaga	gcacagctgc	aggcaagccc	tttgtgaatg	120
tcttgaagga	agctggtgtg	cttcctggca	tcaaggttga	caagggcaca	gtcgagcttg	180
ctggaactaa	tggagaaaacc	accactcagg	gtctagatgg	ccttggtcag	cgttgtgcc	240
agtactacga	agctggtgc					259

<210>	1738
<211>	270
<212>	nucleic acid
<213>	Glycine max

<400>	1738
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tgcgtacatt	ggcactcctg	gaaaggggat	tcttgctgct	gatgagtcaa	cagggacaat	60
tggcaagcgt	ttggccagca	tcagtgtaga	gaacattgaa	tccaacaggc	gagctcttag	120
ggagctgctt	ttcactggtc	ctggtgttct	tcaatatctc	agtgggtgtca	tcctctttga	180
ggaaaccctc	taccagagca	cagctgcagg	caagcccttt	gtgaatgtct	tgaaggaagc	240
tgggtgtgctt	cctggcatca	aggttgacaa				270

<210>	1739
<211>	357
<212>	nucleic acid
<213>	Glycine max

```
<220>
<221>      unsure
<222>      (42)...(43),(66)
<223>      unsure at all n locations
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<400> 1739

gtccaaccta cccctttttc ttctcccacc aacttcaccg tnntcttctt cgatcatgtc 60

tcaactncaag ggcaagtacc atgatgagct tattgccaat gctgcttaca ttggcactcc 120

tggaaagggg attcttgctg ctgatgagtc aacagggaca attggcaagc gtttggccag 180

catcagtgtg gagaatgttg aatccaacag gcgtgctctt agggagctgc ttttcaccgc 240

tcccgggtgct cttaaataatc tcagtgggtg catcctcttt gaggaaatct ctaccagcac 300

agctgcaggc aagccctttg tggaatcttg aaggaggctg gtgtgcttcc tggcatc 357

<210> 1740

<211> 255

<212> nucleic acid

<213> Glycine max

<400> 1740

atcctctttg aggaaaccct ctaccagagc acagctgcag gcaagccctt tgtgaatgtc 60

ttgaaggaag ctggtgtgct tcctggcatc aaggttgaca agggcacagt cgagcttgct 120

ggaactaatg gagaaaccac cactcagggc ctagatggcc ttggtcagcg ttgtgccaag 180

tactacgaag ctggtgcacg ttttgccaaa tggcgtgcag tgctgaagat tgggtcccaac 240

gagccatctg agctg 255

<210> 1741

<211> 292

<212> nucleic acid

<213> Glycine max

<400> 1741

atcctctttg aggaaaccct ctaccagagc acagctgcag gcaagccctt tgtgaatgtc 60

ttgaaggaag ctggtgtgct tcctggcatc aaggttgaca agggcacagt cgagcttgct 120

ggaactaatg gagaaaccac cactcagggc ctagatggcc ttggtcagcg ttgtgccaag 180

tactacgaag ctggtgcacg ttttgccaaa tggcgtgcag tgctgaagat tgggtcccaac 240

gagccatctg agctgtctat cccatgagaa cgctatggct tggctagata cc 292

<210> 1742

<211> 292

<212> nucleic acid
 <213> Glycine max

 <220>
 <221> unsure
 <222> (19), (29), (291)
 <223> unsure at all n locations

 <400> 1742

 ctcttttttct tctctctcna caacttcanc ttcttctctcc tcgatcatgt ctcaattcaa 60
 gggcaagtac catgatgagc ttatcgccaa tgctgcgtac attggcactc ctggaaaggg 120
 tattcttgct gctgatgagt caacagggac aattggcaag cgtttggcca gcatcagtgt 180
 agagaacatt gaatccaaca ggcgagctct tagggagctg cttttcactg ctcttggtgt 240
 tcttcaatat ctcagtggtg tcatcctctt tgaggaaacc ctctaccagg ng 292

<210> 1743
 <211> 265
 <212> nucleic acid
 <213> Glycine max

 <400> 1743

 gtggttgccg agcacactgt cagagccctt cagagaaccg tgcttgccgc agttcctgct 60
 gtcgttttct tgtctggtgg ccagagtgag gaggaggcat ctgtcaacct caacgccatt 120
 aaccaggtca atgggaagaa gccatggtca ctctctttct cctttggaag ggcacttcaa 180
 cagagcacc ctaaggcatg gggcggaaaa gaagagaatg tgaagaaggc tcaggaagcc 240
 cttttggtaa gagccaaggc taact 265

<210> 1744
 <211> 262
 <212> nucleic acid
 <213> Glycine max

 <400> 1744

 tgcagatgag cttatcgcca atgctgcgta cattggcact cctggaaagg gtattcttgc 60
 tgctgatgag tcaacagggg caattggcaa gcgtttggcc agcatcagt tagagaacat 120
 tgaatccaac aggcgagctc ttagggagct gcttttcaact gctcctggtg ttcttcaata 180
 tctcagtggt gtcctctct ttgaggaaac cctctaccag agcacagctg caggcaagcc 240

ctttgtgaat gtcttgaagg aa

262

<210> 1745
 <211> 266
 <212> nucleic acid
 <213> Glycine max
 <220>
 <221> unsure
 <222> (9), (104), (234)
 <223> unsure at all n locations
 <400> 1745

accatgatna gcttatcgcc aatgctgcgt acattggcac tcctggaaag ggtattcttg 60
 ctgctgatga gtcaacaggg acaattggca agcgtttggc cagnatcagt gtagagaaca 120
 ttgaatccaa caggcgagct cttagggagc tgcttttcac tgctcctggt gttcttcaat 180
 atctcagtgg tgtcatcctc tttgaggaaa ccctctacca gaggacagct gcangcaagc 240
 cctttgtgaa tgtcttgaag ggagct 266

<210> 1746
 <211> 276
 <212> nucleic acid
 <213> Glycine max
 <400> 1746

ctggatccca atctgctaag gtttcccctc aggtggttgc cgagcacact gtcagagccc 60
 ttcagagaac cgtgcctgct gcagttcctg ctgtcgtttt cttgtctggt ggccagagtg 120
 aggaggaggc atccgtcaac ctcaacgcca ttaaccaggt caatgggaag aagccatggt 180
 cactctcttt ctcttttggg agggcacttc aacagagcac ccttaaggca tggggcggaa 240
 cagaagagaa tgtgaagaag gctcaggaag cccttt 276

<210> 1747
 <211> 248
 <212> nucleic acid
 <213> Glycine max
 <400> 1747

agggcaagta ccatgatgag cttatcgcca atgctgcgta cattggcact cctggaaagg 60
 gtattcttgc tgctgatgag tcaacaggga caattggcaa gcgtttggcc agcatcagtg 120

tagagaacat tgaatccaac aggcgagctc ttagggagct gcttttcact gctcctggtg 180
 ttcttcaata tctcagtggg gtcatectct ttgaggaaac cctctaccag agcacagctg 240
 caggcaag 248

<210> 1748
 <211> 300
 <212> nucleic acid
 <213> Glycine max

<400> 1748

ctctaacctt cctctttttc ttctctctca acaacttcac cttcttcttc ctcgatcatg 60
 tctcacttca agggcaagta ccatgatgag cttatcgcca atgctgcgta cattggcact 120
 cctggaaagg gtattcttgc tgctgatgag tcaacaggga caattggcaa gcgtttggcc 180
 agcatcagtg tagagaacat tgaatccaac aggcgagctc ttagggagct gcttttcact 240
 gctcctcgtg ttcttcaata tctcagtggg gtcatectct ttgaggaaac cctctaccag 300

<210> 1749
 <211> 287
 <212> nucleic acid
 <213> Glycine max

<400> 1749

gaacgcctat ggcttggcta gttacgctgt catatgccag gagaatggcc tggttcccat 60
 tgttgagcct gagatccttg ttgatggacc tcatgacatt cacaagtgtg ccgccgtcac 120
 cgagcgtgtc cttgcagcat gctacaaggc ttgaatgac accatgtcct tcttgagggt 180
 accctattga agccaaacat ggtcaccctt ggatcccaat ctgctaagggt ttcccctcag 240
 gtggttgccg agcacactgt cagagccctt cagagaaccg tgccctgc 287

<210> 1750
 <211> 254
 <212> nucleic acid
 <213> Glycine max

<400> 1750

ctttgaggaa accctctacc agagcacagc tgcaggcaag ccctttgtga atgtcttgaa 60
 ggaagctggg gtgcttctcg gcatcaagggt tgacaagggc acagtcgagc ttgctggaac 120

taatggagaa accaccactc aggggtctaga tggccttggt cagcgttggt ccaagtacta 180
 cgaagctggt gcacgttttg ccaaattggcg tgcagtgtcg aagattgggt ccaacgagcc 240
 atctgagctg tcta 254

<210> 1751
 <211> 267
 <212> nucleic acid
 <213> Glycine max

<400> 1751

caacaacttc accttcttcc tctcgcata tgtctcactt caagggcaag taccatgatg 60
 agcttatcgc caatgctgcg tacattggca ctcttgaaa gggattctt gctgctgatg 120
 agtcaacagg gacaattggc aagcgtttgg ccagcatcag ttagagaaac attgaatcca 180
 acaggcgagc tcttagggag ctgcttttca ctgctcctgg tgttcttcaa tatctcagtg 240
 gtgtcactct ctttgaggaa acctctt 267

<210> 1752
 <211> 261
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (250)
 <223>

<400> 1752

cgatcatgtc tcaacttcaag ggcaagtacc atgatgagct tattgtcaat gctgcttaca 60
 ttggcactcc tggaaagggt attcttgctg ctgatgagtc aacagggaca attggcaagc 120
 gtttggccag catcgtgtag agaattgtga atccaacagg cgtgctctta gggagctgct 180
 tttcacgct cccggtgctc ttaaataatct cagtgggtgct atcctctttg aggaaactct 240
 ctaccagagn acagctgcag g 261

<210> 1753
 <211> 267
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (242)
 <223>

<400> 1753

gggaggaggc atccgtcaac ctcaacgccca ttaaccagggt caatgggaag aagccatggt 60
 cactctcttt ctccctttgga agggcacttc aacagagcac ccttaaggca tggggcgga 120
 aagaagagaa tgtgaagaag gctcaggaag cccttttggt aagagccaag gctaaactcag 180
 aggcaactct gggaacctac aagggttaact cacagcttgc tgatggtgcc tcagagagcc 240
 tncatgtttc gaactacagc tactgat 267

<210> 1754
 <211> 260
 <212> nucleic acid
 <213> Glycine max

<400> 1754

ggacaattgg caagcgtttg gccagcatca gtgtagagaa tgttgaatcc aacaggcgtg 60
 ctcttaggga gctgcttttc accgctcccg gtgctcttaa atatctcagt ggtgtcatcc 120
 tctttgagga aactctctac cagagcacag ctgcaggcaa gccctttgtg gaagtcttga 180
 aggaggctgg tgttcttctt ggcatcaagg ttgacaaggg cacagttgag cttgctggca 240
 ctaatggaga aaccaccact 260

<210> 1755
 <211> 289
 <212> nucleic acid
 <213> Glycine max

<400> 1755

ctaacctacc tctttttctt ctctctcaac aacttcacct tcttctctct cgatcatgtc 60
 tcaattcaag ggcaagtacc atgatgagct tatcgccaat gctgcgtaca ttggcactcc 120
 tggaaaggggt attcttgctg ctgatgagtc aacagggaca attggcaagc gtttggccag 180
 catcagtgtg gagaacattg aatccaacag gcgagctctt agggagctgc ttttcaactgc 240
 tcttggtggt cttcaatatc tcagtgggtg catcctcttt gaggaaacc 289

<210> 1756
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<400> 1756

ctcttaggga gctgcttttc acgactcctg gtgtttcttca atatctacag tgggtgcatc 60
 ctctttgagg aaacctctta ccagagcaca gctgcaggca agccctttgt gaatgtcttg 120
 aaggaagctg gtgtgcttcc tggcatcaag gttgacaagg gcacagtcga gcttgctgga 180
 actaatggag aatccaccac tcagggtcta gatggccttg gtcagcgctg tgccaagtac 240
 tacgaagctg gtgcacgttt tgcca 265

<210> 1757
 <211> 238
 <212> nucleic acid
 <213> Glycine max

<400> 1757

tctcagtggg gtcacacctt ttgaggaaac cctctaccag agcacagctg caggcaagcc 60
 ctttgtgaat gtcttgaagg aagctggtgt gcttctctggc atcaaggctg acaagggcac 120
 agtcgagctt gctggaacta atggagaaac caccactcag ggtctagatg gccttggtca 180
 gcgttctgcc aagtactacg aagctggtgc acgttttgcc aaatggcgtg cagtgtctg 238

<210> 1758
 <211> 280
 <212> nucleic acid
 <213> Glycine max

<400> 1758

tacctttttt tcttctctct caacaacttc accttcttcc tctctgatca tgtctcactt 60
 caagggcaag taccatgatg agcttatcgc caatgctgcg tacattggca ctcttggaag 120
 gggatttctt gctgctgatg agtcaacagg gacaattggc aagcgtttgg ccagcatcag 180
 tgtagagaac attgaatcca acaggcgagc tcttagggag ctgcttttca ctgctcctgg 240
 tggttcttcaa tatctcagtg gtgtcatcct ctttgaggaa 280

<210> 1759
 <211> 256

<212> nucleic acid
<213> Glycine max

<400> 1762

ccatgatgag cttattgcc aatgctgctta cattggcact cctggaaagg gtattcttgc 60
tgctgatgag tcaacaggg acaattggcaa gcgtttgcc gcatcagtgt agagaatggt 120
gaatccaaca ggcgtgctct tagggagctg cttttcaccg ctcccgggtgc tcttaaatat 180
ctcagtgggtg tcattctctt tgaggaaact ctctaccaga gcacagctgc aggcaagccc 240
tttgtggaag tcttga 256

<210> 1763
<211> 295
<212> nucleic acid
<213> Glycine max

<400> 1763

tctttttctt ctctctcaac aacttcacct tcttctctct cgatcatgtc tcacttcaac 60
ggcaagtacc atgatgagct tatcgccaat gctgcgtaca ttggcactcc tggaaaggggt 120
attcttgctg ctgatgagtc aacagggaca attggcaagc gtttggccag catcagtgt 180
gagaacattg aatccaacag gcgagctctt aggggcgcgc ttttcaactgc tcctgggtgtt 240
cttcaatata tcagtgggtg catctctctt gatgaaccct ctaccagagc acagc 295

<210> 1764
<211> 269
<212> nucleic acid
<213> Glycine max

<400> 1764

ctcgagccgc ttcttctctc tcgatcatgt ctcaattcaa gggcaagtac catgatgagc 60
tcattcgcaa tgctgcgtac attggcactc ctggaaaggg tattcttgct gctgatgagt 120
caacagggac aattggcaag cgtttggcca gcatcagtgt agagaacatt gaatccaaca 180
ggcgagctct tagggagctg cttttcaactg ctctgggtgt tcttcaatat ctcagtgggtg 240
tcattctctt tgaggaaacc ctctaccag 269

<210> 1765
<211> 252

<212>	nucleic acid
<213>	Glycine max

```
<220>
<221>      unsure
<222>      (38), (42), (55), (88), (111), (124), (165)
<223>      unsure at all n locations
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<400>	1765
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ggcaagtaac atgatgagct tatcgccaat gctgcgtnca tnggcactcc tgganagggt	60
attcttgctg ctgatgagtc aacaggggna attggcaagc gtttggccag natcagtgt	120
gagnacattg aatccaacag gcgagctctt agggagctgc ttttnactgc tctgggtgt	180
cttcaatatc tcagtgggtg catcctcttt gaggaaaccc tctaccagag cacagctgca	240
ggcaagccct tt	252

<210>	1766
<211>	256
<212>	nucleic acid
<213>	Glycine max

<400>	1766
-------	------

ggaggaggca	tccgtcaacc	tcaacgccat	taaccaggtc	aatgggaaga	agccatggtc	60
actctctttc	tcctttggaa	gggcacttca	acagagcacc	cttaaggcat	ggggcggaaa	120
agaagagaat	gtgaagaagg	ctcaggaagc	cctttttggt	agagccaagg	ctaactcaga	180
ggcaactctg	ggaacctaca	agggtaactc	acagcttgct	gatggtgctt	cagagagcct	240
ccatgtttcg	aactac					256

<210>	1767
<211>	261
<212>	nucleic acid
<213>	Glycine max

<400>	1767
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ctcaggtggt	tgccgagcac	actgtcagag	cccttcagag	aaccgtgcct	gctgcagttc	60
ctgctgtcgt	tttcttgtct	ggtggccaga	gtgaggagga	ggcatccgtc	aacctcaacg	120
ccattaacca	ggtcaatggg	aagaagccat	ggtcactctc	tttctccttt	ggaagggcac	180
ttcaacagag	caccttaag	gcctggtggc	gaaaagaaga	gaatgtgaag	aaggctcagg	240

aagccctttt ggtaagagcc a

261

<210> 1768
<211> 269
<212> nucleic acid
<213> Glycine max

<400> 1768

attcacaagt gtgccgccgt caccgagcgt gtccttgacg catgctacaa ggctttgaat 60
gatcaccatg tcctttcttga gggtagccta ttgaagccaa acatgggtcac ccctgggatcc 120
caatctgcta aggtttcccc tcaggtgggt gccgagcaca ctgtcagagc ccttcagaga 180
actgtgectg ctgcagttcc tgetgtcgtt ttcttgtctg gtggccagag tgaggaggag 240
gcatccgtca acctcaacgc cattaacca 269

<210> 1769
<211> 294
<212> nucleic acid
<213> Glycine max

<400> 1769

acctacctct ttttcttctc tctcaacaac ttcaccttct tcctcctcga tcatgtctca 60
cttcaagggc aagtaccatg atgagcttat cgccaatgct gcgtacattg gctctcctgt 120
gaaaggggat tcttgtctgt gatgagtcaa caggagacaat tggcaagcgt ttggccagca 180
tcagtgtaga gaacattgaa tccaacaggc gagctcttag ggagctgctt ttcactgctc 240
ctggtgttct tcaatatctc agtgggtgtca tcctctttga ggaaacctct acca 294

<210> 1770
<211> 248
<212> nucleic acid
<213> Glycine max

<400> 1770

tgaatccaac aggcgagctc ttagggagct gcttttcact gctcctgggtg ttcttcaata 60
tctcagtggg gtcacacctc ttgaggaaac cctctaccag agcacagctg caggcaagcc 120
ctttgtgaat gtcttgaagg aagctgggtg gcttcctggc atcaagggtg acaagggcac 180
agtcgagctt gctggaacta atggagaaaac caggactcag ggtctagatg gccttgggtca 240

gcgttgtg

248

<210> 1771
<211> 267
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (24)
<223>

<400> 1771

tggatctcat gacattcaca agtntgctgc cgtcaccgag cgtgtccttg cagcatgcta 60
caaggctttg aatgatcacc acgtccttct tgagggtacc ctattgaagc caaacatggt 120
cacccccgga tccaattctg ctaaggtttc cctcagggtg gttgcggagc aactgttag 180
agcccttcag agaaccgtgc ctgctgcagt tctgctatc gttttcttgt ctggtgggca 240
gagtgaggag gaggcacccg ttaacct 267

<210> 1772
<211> 285
<212> nucleic acid
<213> Glycine max

<400> 1772

ctctaaccta cctctttttc ttctctctca acaacttcac cttcttcctc ctcgatcatg 60
tctcacttca agggcaagta ccatgatgag cttatcgcca atgctgcgta cattggcact 120
cctggaaagg gtattcttgc tgctgatgag tcaacaggga caattggcaa gcgtttggcc 180
agcatcagt tagagaacat tgaatccaac aggcgagctc ttagggagct gcttttcact 240
gctcctggtg ttcttcaata tctcagtggg gtcacccctt ttgag 285

<210> 1773
<211> 267
<212> nucleic acid
<213> Glycine max

<400> 1773

ctgttagagc ccttcagaga accgtgctg ctgcagttcc tgetatcggt ttcttgtctg 60
gtgggcagag tgaggaggag gcatccgtta acctcaatgc cattaaccag gtcaatggaa 120

agaagccatg gtcactctct ttctcctttg gaagggcact tcaacagagc acccttaagg 180
catggagtgg aaaagaggag aatgtgaaga aggcctcagga agcccttttg gtaagagcca 240
aggccaactc agaggcaact ctgggaa 267

<210> 1774
<211> 285
<212> nucleic acid
<213> Glycine max

<400> 1774

tctaacctac ctctttttct tctctctcaa caacttcacc ttcttcctcc tcgatcatgt 60
ctcacttcaa gggcaagtac catgatgagc ttatcgccaa tgctgcgtac attggcactc 120
ctggaaaggg tattcttgct gctgatgagt caacagggac aattggcaag cgtttgcca 180
gcatcagtgt agagaacatt gaatccaaca ggcgagctct tagggagctg cttttcactg 240
ctcctggtgt tcttcaatat ctcagtgggtg tcatcctctt tgagg 285

<210> 1775
<211> 284
<212> nucleic acid
<213> Glycine max

<400> 1775

ctaacctacc tctttttctt ctctctcaac aacttcacct tcttcctcct cgatcatgtc 60
tcacttcaag ggcaagtacc atgatgagct tatcgccaat gctgcgtaca ttggcactcc 120
tggaaggggt attcttgctg ctgatgagtc aacagggaca attggcaagc gtttgccag 180
catcagtgtg gagaacattg aatccaacag gcgagctctt agggagctgc ttttcactgc 240
tcttggtgtt cttcaatata tcagtgggtg catcctcttt gagg 284

<210> 1776
<211> 261
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (46)
<223>

<210> 1779
 <211> 278
 <212> nucleic acid
 <213> Glycine max

<400> 1779

aacctacctc tttttctttc ctctcaacaa cttcaccttc ttctctctcg atcatgtctc 60
 acttcaaggg caagtaccat gatgagctta tcgccaatgc tgcgtacatt ggcactcctg 120
 gaaaggggtat tcttgctgct gatgagtcaa cagggacaat tggcaagcgt ttggccagca 180
 tcagtgtaga gaacattgaa tccaacaggc gagctcttag ggagctgctt ttcactgctc 240
 ctgggtgttct tcaatatctc agtgggtgtca tcctcttt 278

<210> 1780
 <211> 271
 <212> nucleic acid
 <213> Glycine max

<400> 1780

ctctttttct tctctctcaa caacttcacc ttcttctctc tcgatcatgt ctcaattcaa 60
 gggcaagtac catgatgagc ttatcgccaa tgctgcgtac attggcactc ctggaaaggg 120
 tattcttgct gctgatgagt caacagggac aattggcaag cgtttggcca gcatcagtgt 180
 agagaacatt gaatccaaca ggcgagctct tagggagctg cttttcactg ctcttggtgt 240
 tcttcaatat ctcagtgggtg tcctctctt t 271

<210> 1781
 <211> 273
 <212> nucleic acid
 <213> Glycine max

<400> 1781

ctctttttct tctctctcaa caacttcacc ttcttctctc tcgatcatgt ctcaattcaa 60
 gggcaagtac catgatgagc ttatcgccaa tgctgcgtac attggcactc ctggaaaggg 120
 tattcttgct gctgatgagt caacagggac aattggcaag cgtttggcca gcatcagtgt 180
 atagaacatt gaatccaaca ggcgagctct tagggagctg cttttcactg ctcttggtgt 240
 tcttcaatat ctcagtgggtg tcctctctt tga 273

<210> 1782
 <211> 238
 <212> nucleic acid
 <213> Glycine max

<400> 1782

gaatccaaca ggcgagctct tagggagctg cttttcactg ctcttggtgt tcttcaatag 60
 gtcagtgggtg tcctctcttt tgaggtaacc ctctaccaga gcacagctgc aggcaagccc 120
 tttgtgaatg tcttgaagga agctgggtgtg cttcttgcca tcaagggtga caagggcaca 180
 gtcgagcttg ctggaactaa tggagaaacc accactcagg gtctagatgg ccttggtc 238

<210> 1783
 <211> 258
 <212> nucleic acid
 <213> Glycine max

<400> 1783

aacagggaca attggcaagc gtttggccag catcagtgtg gagaatgttg aatccaacag 60
 gtgtgctctt agggagctgc ttttcaccgc tcccgggtgt cttaaataac tcagtgggtg 120
 catctctctt gaggaactc tctaccagag cacagctgca ggcaagccct ttgtggaagt 180
 cttgaaggag gctgggtgtg tctctggcat caaggttgac aagggcacag ttgagcttgc 240
 tggcactaat ggagaaac 258

<210> 1784
 <211> 257
 <212> nucleic acid
 <213> Glycine max

<400> 1784

attgaagcca aacatggtca cccctggatc ccaatctgct aaggtttccc ctgaggtggt 60
 tgccgagcac actgtcagag ccttcagag aaccgtgcct gctgcagttc ctgctgtcgt 120
 tttcttgtct ggtggccaga gtgaggagga ggcacccgac aacctcaacg ccattaacca 180
 ggtcaatggg aagaagccat ggtcactctc tttctctctt ggaagggcac ttcaacagag 240
 cacccttaag gcatggg 257

<210> 1785
 <211> 272

<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (53), (73), (76), (228), (256), (266)
<223> unsure at all n locations

<400> 1788

gtgcctgctg cagttcctgc tatcgttttc ttgtctgggtg ggcagagtga ggnnggaggca 60
tccgttaacc ctnaangcca ttaaccaggt caatggaaag aagccatggt cactctcttt 120
ctcctttgga agggcacttc aacagagcac ccttaaggca tggagtggaa aagaggagaa 180
tgtgaagaag gctcaggaag cccttttgggt aagagccaag gccaaactnag aggcaactct 240
gggaacctac aagggnaatc aaagcntgct gatgggtgcct caga 284

<210> 1789
<211> 268
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (184)...(185)
<223> unsure at all n locations

<400> 1789

cttgctgctg atgagtcaac agggacaatt ggcaagcggt tggccagcat cagtgtagag 60
aacattgaat ccaacaggcg agctottagg gagctgcttt tcaactgctcc tgggtgttctt 120
caatatctca gtggtgtcat cctctttgag gaaacctct accagagcac agctgcagga 180
cagnnctttg tgaatgtctt gaaggaagct ggtgtgcttc ctggcatcaa ggttgacaag 240
ggcacagtcg agcttgctgg aactaatg 268

<210> 1790
<211> 260
<212> nucleic acid
<213> Glycine max

<400> 1790

ggttgacgga tgccctctcc tcaacgccat taaccagggtc aatgggaaga agccatgggtc 60
actctctttc tcctttggaa gggcacttca acagagcacc cttaaggcat ggggcgga 120

agaagagaat gtgaagaagg ctgaggaagc ccttttggtg agagccaagg ctaactcaga 180
 ggcaactctg ggaacctaca agggtaactc acagcttgct gatgggtgct cagagagcct 240
 ccatgtttcg aactacagct 260

<210> 1791
 <211> 264
 <212> nucleic acid
 <213> Glycine max

<400> 1791

caacctaccc cttttttcttc tcccaccaac ttcaccgtct ttttctctga tcatgtctca 60
 cttcaagggc aagtaccatg atgagcttat tgtcaatgct gcttacattg gcactcctgg 120
 aaaggggtatt cttgctgctg atgagtcaac agggacaatt gcaagcgttt ggccagcatc 180
 agtgtagaga atgttgaatc caacaggcgt gctcttaggg agctgctttt caccgctccc 240
 ggtgctctta aatatctcag tggt 264

<210> 1792
 <211> 260
 <212> nucleic acid
 <213> Glycine max

<400> 1792

ctctctcaac aacttcaoct ttttctctct cgatcatgct ttacttcaag ggcaagtacc 60
 atgatgagct tatcgccaat gctgcgtaca ttggcactcc tggaaaggggt attcttgctg 120
 ctgatgagtc aacagggaca attggcaagc gtttggccag catcagtgtg gagaacattg 180
 aatccaacag gcgagctctt agggagctgc ttttcaactgc tcttgggtgtt cttcaatatc 240
 tcagtgggtgt catcctcttt 260

<210> 1793
 <211> 251
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (32), (87), (109)
 <223> unsure at all n locations

<400> 1793

ggaggaggca tccgtcaacc tcaacgccat tnaccaggtc aatgggaaga agccatggtc 60

actctctttc tcctttggaa gggcacntca acagagcacc cttaaggcnt ggggcggaaa 120

agaagagaat gtgaagaagg ctcaaggaagc ccttttggtta agagccaagg ctaactcaga 180

ggcaactctg ggaacctaca agggtaactc acagcttgct gatgggtgcct cagagagcct 240

ccatgtttcg a 251

<210> 1794

<211> 286

<212> nucleic acid

<213> Glycine max

<400> 1794

ctctcaagtc caacctaccc ctttttcttc tcccaccaac ttcaccgtct tcttcctcga 60

tcatgtctca cttcaagggc aagtaccatg atgagcttat tgtcaatgct gcttacattg 120

gcactcctgg aaaggggtatt cttgctgctg atgagtcaac agggacaatt ggcaagcgtt 180

tggccagcat cagtgtagag aatggtgaat ccaacaggcg tgctcttagg gagctgcttt 240

tcaccgctcc cgggtgctctt aaatatctca gtgggtgcat cctctt 286

<210> 1795

<211> 251

<212> nucleic acid

<213> Glycine max

<400> 1795

gaatgcctat ggcttggcca gatacgtgt catatgccag gagaatggcc tggttcccat 60

tggtgagcct gagatccttg ttgatggatc tcatgacatt cacaagtgtg ctgccgtcac 120

cgagcgtgtc cttgcagcat gctacaaggc tttgaatgat caccacgtcc ttcttgaggg 180

taccctattg aagccaaaca tggtcacccc cggatccaat tctgctaagg tttcccctca 240

ggtggttgcg g 251

<210> 1796

<211> 294

<212> nucleic acid

<213> Glycine max

<210> 1799
 <211> 242
 <212> nucleic acid
 <213> Glycine max

<400> 1799

ctcacttcaa gggcaagtac catgatgagc ttatcgccaa tgctgcgtac attggcactc 60
 ctggaaaggg tattcttctt gctgatgagt caacagggac aattggcaag cgtttggcca 120
 gcatcagtgt agagaacatt gaatccaaca ggcgagctct tagggagctg cttttcactg 180
 ctcttggtgt tcttcaatat ctcaagtggg tcatcctctt tgaggaaacc ctctaccaga 240
 gc 242

<210> 1800
 <211> 269
 <212> nucleic acid
 <213> Glycine max

<400> 1800

cacctacccc tttttcttct cccaccaact tcaccgtctt cttcctcgat catgtctcac 60
 ttcaagggca agtaccatga tgagcttatt gccaatgctg cttacattgg cactcctgga 120
 aagggatttc ttgctgctga tgagtcaaca gggacaattg gcaagcgttt ggccagcatc 180
 agtgtagaga atgttgaatc caacaggcgt gctcttaggg agctgctttt caccgctccc 240
 ggtgctctta catatctcag tgggtgcat 269

<210> 1801
 <211> 230
 <212> nucleic acid
 <213> Glycine max

<400> 1801

ctcaggtggt tgccgagcac actgtcagag cccttcagag aaccgtgcct gctgcagttc 60
 ctgctgtcgt tttcttctt ggtggccaga gtgaggagga ggcacccgct aacctcaacg 120
 ccattaacca ggtcaatggg aagaagccat ggctactctc tttctccttt ggaagggcac 180
 ttcaacagag cacccttaag gcatggggcg gaaaagaaga gaatgtgaag 230

<210> 1802
 <211> 246

<212> nucleic acid
<213> Glycine max

<400> 1802

atacgtgtgc atatgccagg agaatggcct ggttcccatt gttgagcctg agatccttgt 60
tgatggacct catgacattc acaagtgtgc cgccgtcacc gagcgtgtcc ttgcagcatg 120
ctacaaggct ttgaatgata accatgtcct tcttgagggt accctattga agccatacat 180
ggtcacccct ggatcccaat ctgctaagggt ttcccctcag gtggttgccg agcacactgt 240
cagagc 246

<210> 1803
<211> 262
<212> nucleic acid
<213> Glycine max

<400> 1803

ctacaaggct ttgaatgata accatgtcct tcttgagggt accctattga agccaaacat 60
ggtcacccct ggatcccaat ctgctaagggt ttcccctcag gtggttgccg agcacactgt 120
cagagccctt cagagaaccg tgctgtgtgc agttcctgtc gtcgttttct tgtctggtgg 180
ccagagtgtg gaggaggcat ccgtcaacct caacgccatt aaccagggtca atgggaagaa 240
gccatggtca ctctctttct cc 262

<210> 1804
<211> 280
<212> nucleic acid
<213> Glycine max

<400> 1804

tctctcaaca acttcacctt ctctctctc gatcatgtct cacttcaagg gcaagtacca 60
tgatgagctt atcgccaatg ctgcgtacat tggcactcct ggaaagggtta ttcttgctgc 120
tgatgagtca acagggacaa ttggcaagcg ttggccagca tcagtgtaga gccattgaa 180
tccaacaggc gagctcttag ggagctgctt ttactgtctc ctggtgttct tcaatatctc 240
agtgggtgtca tctcttttga ggaaaccctc taccagagca 280

<210> 1805
<211> 294

<212>	nucleic acid
<213>	Glycine max

caacctctca	agtccaacct	accccttttt	cttctccac	caacttcacc	gtcttcttcc	60
tcgatcatgt	ctcacttcaa	gggcaagtac	catgatgagc	ttattgcaa	tgctgcttac	120
attggcactc	ctggaaaagg	tattcttgct	gctgtgagtc	aacagggaca	attggcaagc	180
gtttggccag	catcagtgt	gagaatgttg	aatccaacag	gcgtgctctt	agggagctgc	240
ttttcaccgc	tcccggtgct	cttaaatatc	tcagtgggtg	catcctcttt	gagg	294

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<220>
<221>      unsure
<222>      (63)
<223>
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<400> 1806

tctaacctac	ctctttttct	tctctctcaa	caacttcacc	ttcttctctc	tcgatcatgt	60
ctncacttcc	aagggcaagt	accatgatga	gcttatcgcc	aatgctgcgt	acattggcac	120
tcttggaag	ggtattcttg	ctgctgatga	gtcaacaggg	acaattggca	agcgtttggc	180
cagcatcagt	gtagagaaca	ttgaatccaa	caggcgagct	cttagggagc	tgcttttcac	240
tgctctgggt	gttcttcaat	atctcagtgg	tgctatcctc	tttgaggaaa		290

<210>	1807
<211>	266
<212>	nucleic acid
<213>	Glycine max

<400> 1807

acctacctct	ttttcttctc	tctcaacaac	ttcaccttct	tcctcctcga	tcatgtctca	60
cttcaagggc	aagtaccatg	atgagcttat	cgccaatgct	gcgtacattg	gcactcctgg	120
aaaggggtatt	cttgctgctg	atgagtcaac	agggacaatt	ggcaagcggt	tggccagcat	180
cagtgtagag	aacattgaat	ccaacaggcg	agctcttagg	gagctgcttt	tcactgctcc	240

tttcttgtct ggtggccaga gtgaggagga ggcattccgtc aacctcaacg ccattaacca 180
 ggtcaatggg aagaagccat ggtcactctc tttctccttt ggaagggcac ttcaacagag 240
 cacc 244

<210> 1811
 <211> 264
 <212> nucleic acid
 <213> Glycine max

<400> 1811

cctctttttc ttctctctca acaacttcac cttcttctc ctcgatcatg tctcacttca 60
 agggcaagta ccatgatgag cttatcgcca atgctgcgta cattggcact cctggaaagg 120
 gtattcttgc tgctgatgag tcaacagggg caattggcaa gcgtttggcc agcatcagt 180
 tagagaacat tgaatccaac aggcgagctc ttagggagct gcttttctact gctcctgggtg 240
 ttcttcaata tctcagtggg gtca 264

<210> 1812
 <211> 269
 <212> nucleic acid
 <213> Glycine max

<400> 1812

aacctacctc tttttcttct ctctcaacaa cttcaccttc ttctctctcg atcatgtctc 60
 acttcaaggg caagtaccat gatgagctta tcgccaatgc tgcgtacatt ggcactcctg 120
 gaaaggggat tcttgctgct gatgagtcaa cagggacaat tggcaagcgt ttggccagca 180
 tcagtgtaga gaacattgaa tccaacaggc gagctcttag ggagctgctt ttcactgctc 240
 ctggtgttct tcaatatctc agtggtgtc 269

<210> 1813
 <211> 268
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (35)
 <223>

<400> 1813
 cctcttttttc ttctctctca acaacttcac cttctctctc ctcgatcatg tctcacttca 60
 agggcaagta ccatgatgag cttatcgcca atgctgcgta cattggcact cctggaaagg 120
 gtattcttgc tgctgatgag tcaacaggga caattggcaa gcgtttggcc agcatcagt 180
 tagagaacat tgaatccaac aggcgagctc ttagggagct gcttttctact gtccttggtg 240
 ttcttcaata tctcagtggg gtcctcct 268

<210> 1814
 <211> 271
 <212> nucleic acid
 <213> Glycine max

<400> 1814
 aacctacctc tttttcttct ctctcaacaa cttcaccttc ttctctctcg atcatgtctc 60
 acttcaaggg caagtaccat gatgagctta tcgccaatgc tgcgtacatt ggcactcctg 120
 gaaagcgtat tcttgctgct gatgagtcaa cagggaacaat tggcaagcgt ttggccagca 180
 tcagtgtaga gaacattgaa tccaacaggc gagctcttag ggagctgctt ttcactgctc 240
 ctggtgttct tcaatatctc agtggtgtca t 271

<210> 1815
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<400> 1815
 gatcaccatg tccttcttga gggtagccta ttgaagccaa acatgggtcac ccctggatcc 60
 caatctgcta aggtttcccc tcaggtgggt gccgagcaca ctgtcagagc ccttcagaga 120
 accgtgctg ctgcagttcc tgctgtcgtt ttcttgtctg gtggccagag tgaggaggag 180
 gcatccgtca acctcaacgc cattaaccag gtcaatggga agaagccatg gtcactctct 240
 ttctcctttg gaagggcact tcaac 265

<210> 1816
 <211> 251
 <212> nucleic acid
 <213> Glycine max

<400> 1816
 ctgctcctgg tgttcttcaa tatctcagtt ctgtcatcct ctttgaggaa accctctacc 60
 agagcacagc tgcaggcaag ccctttgtga atgtcttgaa ggaagctggt gtgcttcctg 120
 gcatcaaggt tgacaagggc acagtcgagc ttgctggaac taatggagaa accaccactc 180
 aggggtctaga tggccttggt cagcgttgtg ccaagtacta cgaagctggt gcacgttttg 240
 ccaaatggcg t 251

<210> 1817
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<400> 1817
 gctcgaagcg caattggaca agcgtttggc cagcatcagt gtagagaaca ttgaatccaa 60
 caggcgagct cttagggagc tgcttttcac tgctcctggt gttcttcaat atctcagtgg 120
 tgtcatcctc tttgaggaaa ccctctacca gagcacagct gcaggcaagc cctttgtgaa 180
 tgtcttgaag gaagctggtg tgcttcctgg catcaagggt gacaagggca cagtcgagct 240
 tgctggaact aatggagaaa ccacc 265

<210> 1818
 <211> 264
 <212> nucleic acid
 <213> Glycine max

<400> 1818
 tctcgagccg attcggctcg aggtgcctgc tgcagttcct gctgacgttt tcttgtctgg 60
 aggccagagt gaggaggaga catccgtcaa cctcaacgcc attaaccagg tcaatgggaa 120
 gaagccatgg tcaactctctt tctccttttg aagggcactt caacagagca cccttaaggc 180
 atggggcgga aaagaagaga atgtgaagaa tgctcaggaa gcccttttgg taagagccaa 240
 ggctaactca gaggcaactc tggg 264

<210> 1819
 <211> 247
 <212> nucleic acid
 <213> Glycine max

tcagtgtaga gaacattgaa tccaacaggc gagctcttag ggagctgctt ttcactgctc 240
ctggtgttcn tcaatatctc agtgggtg 267

<210> 1822
<211> 268
<212> nucleic acid
<213> Glycine max

<400> 1822

gtccaaccta cccctttttc ttctcccacc aacttcaccg tcttcttcct cgatcatgtc 60
tcacttcaag ggcaagtacc atgatgagct tattgccaat gctgcttaca ttggcactcc 120
tggaagggt attcttgctg ctgatgagtc aacagggaca attggcaagc gtttggccag 180
catcagtgtg gagaatgttg aatccaacag gcgtgctctt agggagctgc ttttcaccgc 240
tcccgggtgct cttaaataatc tcagtgggt 268

<210> 1823
<211> 266
<212> nucleic acid
<213> Glycine max

<400> 1823

taacctacct cttttttctt tctctcaaca acttcacctt cttcctcctc gatcatgtct 60
cacttcaagg gcaagtacca tgatgagctt atcgccaatg ctgcgtacat tggcactcct 120
ggaaagggtt ttcttgctgc tgatgagtca acagggacaa ttggcaagcg tttggccagc 180
atcagtgtag agaacattga atccaacagg cgagctctta gggagctgct tttcactgct 240
cctggtgttc ttcaatatct cagtgg 266

<210> 1824
<211> 259
<212> nucleic acid
<213> Glycine max

<400> 1824

ctctttttct tctctctcaa caacttcacc ttcttctctc tcgatcatgt ctcacttcaa 60
gggcaagtac catgatgagc ttatcgccaa tgctgcgtac attggcactc ctggaaagggt 120
tattcttgct gctgatgagt caacagggac aattggcaag cgtttggcca gcatcagtgt 180

ggcacagtgc agcttgctgg aactaatgga gacaccacca ctcagggctc agcatggctt 240
agtcagcggt gtc 253

<210> 1828
<211> 258
<212> nucleic acid
<213> Glycine max

<400> 1828

ctacctcttt ttcttctctc tcaacaactt cacttcttc ctctcgatc atgtctcact 60
tcaagggcaa gtacatgat gagcttatcg ccaatgctgc gtacattggc actcctggaa 120
agggtattct tgctgctgat gagtcaacag ggacaattgg caagcgcttg gccagcatca 180
gtgtagagaa cattgaatcc aacaggcgag ctcttaggga gctgcttttc actgctcctg 240
gtgttcttca atatctca 258

<210> 1829
<211> 248
<212> nucleic acid
<213> Glycine max

<400> 1829

gccaggagaa tggcctgggt cccattgttg agcctgaggt ccttggtgat ggacctcgtg 60
acattcacia gtgtgcgcgc gtcaccgagc gtgtccttgc agcatgctac aaggctttgg 120
gtgatcaccg tgtccttctt gagggtagcc tattgaagcc aaacatgggc acccctggat 180
cccagtctgc taagggttcc cctcaggtgg ttgccgagca cactgtcaga gcccttcaga 240
gaaccgtg 248

<210> 1830
<211> 237
<212> nucleic acid
<213> Glycine max

<400> 1830

attgaagcca aacatgggtc cccctggatc ccaatctgct aagggtttccc ctcaggtggt 60
tgccgagcac actgtcagag cccttcagag aaccgtgcct gctgcagttc ctgctgtcgt 120
tttcttgtct ggtggccaga gtgaggagga ggcacccgtc aacctcaacg ccattaacca 180

ggatcaatggg aagaagccat ggatcactctc tttctccttt ggaagggcac ttcaaca 237

<210> 1831
 <211> 248
 <212> nucleic acid
 <213> Glycine max

<400> 1831

cttgagggta cctattgaag ccaaacatgg tcacccccgg atccaattct gctaagggtt 60
 cccctcaggt gggtgcggac aactgttag agcccttcag agaaccgtgc ctgctgcagt 120
 tctgtctatc gttttcttgt ctgggtgggca gagtgaggag gaggcacccg ttaacctcaa 180
 tgccattaac caggtcaatg gaaagaagcc atggtcactc tttttctcct ttggaagggc 240
 acttcaac 248

<210> 1832
 <211> 252
 <212> nucleic acid
 <213> Glycine max

<400> 1832

agtcggatct agctgcttac attggcactc ctggaaaggg tattcttgct gctgatgagt 60
 caacagggac aattggcaag cgtttgcca gcatcagtgt agagaatgtt gaatccaaca 120
 ggagtgtct tagggagctg cttttcacccg ctcccgggtgc tcttaaataat ctgagtgggtg 180
 tcctctctt tgaggaaact ctctaccaga gtacagctgc aggcaacccc tttgtggaac 240
 tcttgaagga gg 252

<210> 1833
 <211> 264
 <212> nucleic acid
 <213> Glycine max

<400> 1833

ctaacctacc ttttttctt ctctctcaac aacttcacct ttttctcct cgatcatgtc 60
 tcaattcaag ggcaagtacc atgatgagct tatcgccaat gctgcgtaca ttggcactcc 120
 tggaaagggg attcttgctg ctgatgagtc aacagggaca attggcaagc gtttggccag 180
 catcagtgtg gagaacattg aatccaacag gcgagctctt agggagctgc ttttactgc 240

ttcaatatct cagtgggtg

258

<210> 1837
<211> 242
<212> nucleic acid
<213> Glycine max

<400> 1837

acttcacctt cttcctcctc gatcatgtct cacttcaagg gcaagtacca tgatgagctt 60
atcgccaatg ctgcgtacat tggcactcct ggaaagggta ttcttgctgc tgatgagtca 120
acagggacaa ttggcaagcg tttggccagc atcagtgtag agaacattga atccaacagg 180
cgagctctta gggagctgct tttcactgct cctgggtgtc ttcaatatct cagtgggtgc 240
at 242

<210> 1838
<211> 252
<212> nucleic acid
<213> Glycine max

<400> 1838

cctctttttc ttctctctca acaacttcac cttcttcctc ctgatcatg tctcacttca 60
agggcaagta ccatgatgag cttatcgcca atgctgcgta cattggcact cctggaaagg 120
gtattcttgc tgctgatgag tcaacaggga caattggcaa gcgtttggcc agcatcagtg 180
tagagaacat tgaatccaac aggcgagctc ttagggagct gcttttcact gctcctgggtg 240
ttcttcaata tc 252

<210> 1839
<211> 272
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (13), (35), (93), (231), (246)
<223> unsure at all n locations

<400> 1839

aactacctt ttntcttctc tctcaacaac ttcancttct tctcctcga tcatgtctca 60
cttcaagggc aagtaccatg atgagcttat cgncaatgct gcgtacattg gcactcctgg 120

aaaggggtatt cttgctgctg atgagtcaac agggacaatt ggcaagcgtt tggccagcat 180
cagtgtagag aacattgaat ccaacaggcg agctcttagg gagctgcttt ncactgctcc 240
tggtgntctt caatatctca ggtgtcatcc tc 272

<210> 1840
<211> 246
<212> nucleic acid
<213> Glycine max

<400> 1840

atcaccatgt ccttcttgag ggtaccctat tgaagccaaa catggtcacc cctggatccc 60
aatctgctaa gggttccct caggtgggtg ccgagcacac tgtcagagcc cttcagagaa 120
ccgtgcctgc tgcagttcct gctgtcgctt tcttgtctgg tggccagagt gaggaggagg 180
catcgtcaa cctcaacgcc attaaccagg tcaatgggaa gaagccatgg tcaactctctt 240
tctcct 246

<210> 1841
<211> 252
<212> nucleic acid
<213> Glycine max

<400> 1841

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gggcaagtac catgatgagc ttatcgccaa tgcctgctac attggcactc ctggaaaggg 120
tattcttgct gctgatgagt caacagggac aattggcaag cgtttggcca gcatcagtgt 180
agagaacatt gaatccaaca ggcgagctct tagggagctg cttttcactg ctcttggtgt 240
tcttcaatat ct 252

<210> 1842
<211> 251
<212> nucleic acid
<213> Glycine max

<400> 1842

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gcaagtacca tgatgagctt attgccaatg ctgcgtacat tggcactcct ggaaagggta 120

<400> 1845
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 gtctcacttc aagggcaagt accatgatga gcttattgtc aatgctgctt acattggcac 120
 tcctggaaaag ggtattcttg ctgctgatga gtcaacaggg acaattggca agcgtttggc 180
 cagcatcagt gtagagaatg ttgaatccaa caggcgtgct cttagggagc tgcttttcac 240
 cgctcccggg gctcttaa atctc 265

<210> 1846
 <211> 278
 <212> nucleic acid
 <213> Glycine max

<400> 1846
 ttccaacctc tcaagtccaa cctacccctt tttctttctcc caccaacttc accgtcttct 60
 tcctcgatca tgtctcactt caagggcaag taccatgatg agcttattgc caatgctgct 120
 tacattggca ctctggaaa gggtttcttg ctgctgatga gtcaacaggg acaattggca 180
 agcgtttggc cagcatcagt gtagagaatg ttgaatccaa caggcgtgct cttagggagc 240
 tgcttttcac cgctcccggg gctcttaa atctcagt 278

<210> 1847
 <211> 277
 <212> nucleic acid
 <213> Glycine max

<400> 1847
 tcaagtccaa cctacccctt tttctttctcc caccaacttc accgtcttct tcctcgatca 60
 tgtctcactt caagggcaag taccatgatg agcttattgt caatgctgct tacattggca 120
 ctctggatc agggattctt tgctgctgat gaggcaacag ggacaattgg caagcgtttg 180
 gccagcatca gtgtagagaa tgttgaatcc aacaggcgtg ctcttaggga gctgcttttc 240
 accgtcccgt gtgctcttaa atatctcagt ggtgtca 277

<210> 1848
 <211> 224
 <212> nucleic acid
 <213> Glycine max

<400> 1848
 cgggtattct tgctgctgat gagtcaacag ggacaattgg caagcgtttg gccagcatca 60
 gtgtagagaa tgttgaatcc aacaggcgtg ctcttaggga gctgcttttc accgctcccg 120
 gtgctcttaa atatctcagt ggtgtcatcc tctttgagga aactctctac cagagcacag 180
 ctgcaggcaa gccctttctg gaagtcttga aggaggcttg tgtg 224

<210> 1849
 <211> 238
 <212> nucleic acid
 <213> Glycine max

<400> 1849
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 aagtaccatg atgagcttat tgccaatgct gcttacattg gcaactcctgg aaaggggtatt 120
 cttgctgctg atgagtcaac agggacaatt ggcaagcgtt tggccagcat cagtgtagag 180
 aatggtgaat ccaacaggcg tgctcttagg gagctgcttt tcaccgctcc cgggtgctc 238

<210> 1850
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<400> 1850
 ctcaagtcca acctacctct tttttctctc ccaccaactt caccgtcttc ttcctcgatc 60
 atgtctcact tcaagggcaa gtaccatgat gagcttattg ccaatgatac ttacattggc 120
 actcctggaa aggggtattct tgctgctgat gagtcaacag ggacaattgg caagcgtttg 180
 gccagcatca gtgtagagaa tgttgaatcc aacaggcgtg ctcttaggga gctgcttttc 240
 accgctcccg gtgctcttaa atatc 265

<210> 1851
 <211> 271
 <212> nucleic acid
 <213> Glycine max

<400> 1851
 acctacctct tttttctctc tctcaacaac ttcacctct tctcctcga tcatgtctca 60

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cttcaagggc aagtaccatg atgagcttat cgccaatgct gcgtacattg gcactcctgg 120
aaaggggtatt cttgctgctg atgagtcaac agggacaatt ggcaagcggt tggccagcat 180
cagtgtagag aacattgaat ccaacaggcg agctcttagg gagctgcttt tcaactgctcc 240
tggtgttctt caatattcag tggtgtcatc c 271

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<210>	1852
<211>	261
<212>	nucleic acid
<213>	Glycine max

<400> 1852

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gaggggtacc	tattgaagcc	aaacatggtc	accctggatc	ccaatctgct	aaggtttccc	120
ctcaggtggt	tgcgagcaca	ctgtcagagc	ccttcagaga	accgtgcctg	ctgcagttcc	180
tgctgtcggt	ttcttgtctg	gtggccagag	tgaggaggag	gcatccgtca	acctcaacgc	240
cattaaccag	tcaatgggaa	g				261

<210>	1853
<211>	261
<212>	nucleic acid
<213>	Glycine max

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<220>
<221>      unsure
<222>      (54)
<223>
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<400> 1853

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tcgatcatgt	ctcacttcaa	gggcaagtac	catgatgagc	ttattgccaa	tgetgcttac	120
attggcactc	ctggaaaagg	tattcttgct	gctgatgagt	caacagggac	aattggcaag	180
cgtttggcca	gcatcagtgt	agagaatggt	gaatccaaca	ggcgtgctct	tagggagctg	240
cttttcaccg	ctcccgggtgc	t				261

<210>	1854
<211>	240
<212>	nucleic acid
<213>	Glycine max

atgtctcact tcaagggcaa gtaccatgat gagcttattg ccaatgctgc ttacattggc 120
 actcctggaa aggggtattct tgctgctgat gagtcaacag ggacaattgg caagcgtttg 180
 gccagcatca gtgtagagaa tgttgaatcc aacaggcgtg ctcttaggga gctgcttttc 240
 accgctcccg gtgctcttaa 260

<210> 1858
 <211> 242
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (112), (192)
 <223> unsure at all n locations

<400> 1858

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 tgaggggtacc ctattgaagc caaacatggc cacccttgga tccaatctg cnaaggtttc 120
 ccctcagggtg gttgccgagc aactgtcag agcccttcag agaaccgtgc ctgctgcagt 180
 tctgtctgtc gntttcttgt ctggtggcca gagtgaggag gaggcattccg tcaacctcaa 240
 cg 242

<210> 1859
 <211> 266
 <212> nucleic acid
 <213> Glycine max

<400> 1859

cctacctctt tttcttctct ctcaacaact tcaccttctt cctcctcgat tcatgtctca 60
 cttcaagggc aagtaccatg atgagcttat cgccaatgct gcgtacattg gcactcctgg 120
 aaaggggtatt cttgctgctg atgagtcaac agggacaatt ggcaagcgtt tggccagcat 180
 cagtgtagag aacattgaat ccaacaggcg agctcttagg gagctgcttt tcactgctcc 240
 tgggtgttctt caatatctca gtggtg 266

<210> 1860
 <211> 260
 <212> nucleic acid

<213> Glycine max
 <400> 1860
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 aagtaccatg atgagcttat cgccaatgct gcgtacattg gcactcctgg aaaggggtact 120
 cttgctgctg atgagcaaca gggacaattg gcaagcgttt ggccagcatc agtgtagaga 180
 accttgaatc caacaggcga gctcttaggg agctgctttt cactgctcct ggtgttcttc 240
 aatatctcag tgggtgtcatc 260

<210> 1861
 <211> 264
 <212> nucleic acid
 <213> Glycine max
 <400> 1861
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 tctcaattca agggcaagta ccatgatgag cttatcgcca atgctgcgta cattggcact 120
 cctggaaagg gtattttgct gctgatgagt caacaggggac aattggcaag cgtttggcca 180
 gcatcagtgt agagaacatt gaatccaaca ggcgagctct tagggagctg cttttcactg 240
 ctctgtgtgt tcttcaatat ctca 264

<210> 1862
 <211> 256
 <212> nucleic acid
 <213> Glycine max
 <400> 1862
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 tcacttcaag ggcaagtacc atgatgagct tattgccaat gctgcttaca ttggcactcc 120
 tggaaagggg attcctgctg ctgatgagtc aacaggggaca attggcaagc gtttggccag 180
 catcagtgtg gagaatgttg aatccaacag gcgtgctctt agggagctgc ttttcaccgc 240
 tcccgtgct cttaaa 256

<210> 1863
 <211> 256
 <212> nucleic acid

<210>	1872
<211>	249
<212>	nucleic acid
<213>	Glycine max

ccaacctacc	cctttttcct	ctcccaccaa	cttcacgcgc	atcttcctcg	atcatgtctc	60
acttcaagg	caagtaccat	gatgagctta	ttgccaatgc	tgcttacatt	ggcactcctg	120
gaaagggat	tcttgctgct	gatgagtcaa	cagggacaat	tggcaagcgt	ttggccagca	180
tcagtgtaga	gaatgttgaa	tccaacaggc	gtgctcttag	ggagctgctt	atcacgcgtc	240
ccggtgctc						249

<400> 1873

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actcctggaa	agggtattct	tgctgctgat	gagtcaacag	ggacaattgg	caagcgtatg	180
gctcgcatca	gtgtagagaa	tgttgaatcc	aacaggcgtg	ctcttaggga	gctgcttttc	240
acc						243

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<220>
<221>      unsure
<222>      (41),(46),(95),(115),(117),(167),(194),(202),(215)
<223>      unsure at all n locations
```

<400> 1874

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tggcactcct ggaaagggta ttcttgctgc tgatgagtca acagggnaaa ttggcaagcg 180
 tttggccagc atcngtgtag anaatgttga atccnacagg cgtgctctta gggagctgct 240
 tttcaccgct cccg 254

<210> 1875
 <211> 252
 <212> nucleic acid
 <213> Glycine max

<400> 1875
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 acttcaaggg caagtacat gatgagctta tcgccaatgc tgcgtacatt ggcactcctg 120
 gaaagggcat tcttgctgct gaggagtcaa cagggacaat tggcaagcgt ttggccagca 180
 tcagtgtcga gaacattgaa tccaacaggc gagctcttag ggagctgctt ttcaactgctc 240
 ctggtgttcc cc 252

<210> 1876
 <211> 294
 <212> nucleic acid
 <213> Glycine max

<400> 1876
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 acattggcac tcttggaag ggtattcttg ctgctgatga gtcaacaggg acaattggca 180
 agcgtttggc cagcatcagt gtagagaatg ttgaatcaa caggcgtgct cttagggagc 240
 tgcttttcac cgtcccggt gctcttaaat atctcagtgg tgtcaacctc ttga 294

<210> 1877
 <211> 244
 <212> nucleic acid
 <213> Glycine max

<400> 1877
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 agggatttct tgctgctgat gagtcaacag ggacaattgg caagcgtttg gccagcatca 120

gtgtagagaa cattgaatcc aacaggcgag ctcttaggga gctgcttttc actgctcctg 180
 gtgtttttca atatctcagt ggtgtcatcc tctttgagga aacctctac cagagcacag 240
 ctgc 244

<210> 1878
 <211> 244
 <212> nucleic acid
 <213> Glycine max

<400> 1878

ctcaagtcca acctacccct tttttttctc ccaccaactt caccgtcctc ttctctgatc 60
 atgtctcact tcaagggcaa gtaccatgat gagcttattg tcaatgctgc ttacattggc 120
 actcctggaa agggatttct tgctgctgat gagtcaacag ggacaattgg caagcgtttg 180
 gccagcatca gtgtagagaa tgttgaatcc aacaggcggtg ctcttaggga gctgcttttc 240
 accg 244

<210> 1879
 <211> 259
 <212> nucleic acid
 <213> Glycine max

<400> 1879

ccaacctctc aagtccaacc tacccttttt tcttctccca ccaacttcac cgtcttcttc 60
 ctgatcatg tctcatttca agggcaagta ccatgatgag cttattgtca atgctgctta 120
 cattggcact ctggaaaggg tattcttgct gctgatgagt caacagggac aattggcaag 180
 cgtttggccca gcatcagtgt agagaatgtt gaatccaaca ggcgtgctct tagggagctg 240
 cttttcacccg ctcccgtg 259

<210> 1880
 <211> 258
 <212> nucleic acid
 <213> Glycine max

<400> 1880

gtccaacctc cccctttttc ttctcccacc aacttcaccg tcttcttcct cgatcatgtc 60
 tcaattcaag ggcaagtacc atgatgagct tattgccaat gctgcttaca ttggcactcc 120

tgtcttgaag gaagctggtg tgcttcctgg catcaagggt gacaagggca cagtcgagct 180
tgctggaact aatggagaaa ccaccactca ggggtctagat ggccttggtc agcgttgtg 239

<210> 1884
<211> 261
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (39), (62), (67)
<223> unsure at all n locations

<400> 1884

ctaacctacc tctttttctt ttctctcaac aacttcacnt tcttctctct cgatcatgtc 60
tnacttncaa gggcaagtac catgatgagc ttatcgccaa tgctgcgtac attggcactc 120
ctggaaaggg tattcttgtg ctgatgagtc aacagggaca attggcaagc gtttggccag 180
catcagtgtg gagaacattg aatccaacag gcgagctctt agggagctgc ttttactgtc 240
tcctggtggt cttcaatatc t 261

<210> 1885
<211> 239
<212> nucleic acid
<213> Glycine max

<400> 1885

ccaacctctc aagtccaacc taccctttt tcttctccca ccaacttcac cgtcctcttc 60
ctcgatcatg tctcacttca agggcaagta ccatgatgag cttattgcca atgctgctta 120
cattggcact cctggaaagg gtattcttgc tgctgatgag tcaacaggga caattggcaa 180
gcgtttggcc agcatcagtg tagagaatgt tgaatccaac aggcgtgctc ttagggagc 239

<210> 1886
<211> 256
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (65), (68)
<223> unsure at all n locations

<220>
 <221> unsure
 <222> (45)
 <223>

 <400> 1889

 ctttcttcca acctctcaag tccaacctac ccctttttct tctcncacca acttcaccgt 60
 cttcttctct gatcatgtct cacttcaagg gcaagtacca tgatgagctt attgccaatg 120
 ctgcttacat tgcactcctg gaaagggat tcttgctgct gatgagtcaa cagggacaat 180
 tggcaagcgt ttggccagca tcagtgtaga gaatgttgaa tccaacaggc gtgctcttag 240
 ggagctgctt ttca 254

<210> 1890
 <211> 255
 <212> nucleic acid
 <213> Glycine max

 <400> 1890

 cctacctctt tttcttctct ctcaacaact tcaccttctt cctcctcgat catgtctcac 60
 ttcaagggca agtaccatga tgagcttctc gccaatgctg cgtacattgg cactcctgga 120
 aagggatttc ttgctgctga tgagtcaaca gggacaattg gcaagcgttt ggccagcatc 180
 agtgtagaga acattgaatc caacaggcga gctcttaggg agctgctttt cactgctcct 240
 ggtgttcttc aatat 255

<210> 1891
 <211> 238
 <212> nucleic acid
 <213> Glycine max

 <400> 1891

 cctcgagccg aatcggtctg agcacttcaa gggcaagtac catgacgagc ttattgtcaa 60
 acctgcttac attggcactc ctggaaaggg tattcttctg gctgatgagt caacagggac 120
 aattggcaag cgtttggcca gcatcagtgt agagaatgtt gaatccaaca ggcgtgctct 180
 tagggagctg cttttcaccg ctcccgggtg tottaaatat ctgagtggtg tcatcctc 238

<210> 1892
 <211> 271

<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (251), (264)... (265)
<223> unsure at all n locations

<400> 1892

ggcctggttc ccattgttga gcctgagatc cttgttgatg gacctcatga cattcacaag 60
tgtgccgcgc tcaccgagcg tgtccttgca gcatgctaca aggctttgaa tgatcaccat 120
gtcctttcttg agggtaacct attgaagcca aacatgggtca cccctggatc ccaatctgct 180
aagggtttccc ctcaggtggt tgccgagcaa atgtcagagc cttcagagaa cggtgcctgc 240
tgcagtcctg ngtcgttttc tggnnngggg g 271

<210> 1893
<211> 283
<212> nucleic acid
<213> Glycine max

<400> 1893

ctctaacctt cctctttttc ttctctctca acaacttcac cttctacctc ctcgatcatg 60
tctcacttca agggcaagta ccatgatgag cttatcgcca atgctgcgta cattggcact 120
cctggaaagg gtattcttgc tgctgatgag tcaacaggga caattggcaa gcgtttggcc 180
agcatcagtg tagagaacat cgaatccaac aggcgagctc ttagggagct gcttttcact 240
gctcctggtg ttcttcaata tctcagtact gtcacccctt ttg 283

<210> 1894
<211> 253
<212> nucleic acid
<213> Glycine max

<400> 1894

tttcttccaa cctctcaagt ccaacctacc cctttttctt ctcccaccaa cttcaccgtc 60
actcttcttc gatcatgtct cacttcaagg gcaagtacca tgatgagctt attgccaatg 120
ctgcttacat tggcactcct ggaaagggtg ttcttgctgc tgatgagtca acaggggacaa 180
ccggcaagcg tttggccagc atcagtgtag agaattgtga atccaacagg cgtgctctta 240

<400> 1897

cttccaacct ctcaagtcca acctaccnct ttttcttctc ccaccaactt caccgtcctt 60

cttcctcgat catgtctcac ttcaagggca agtaccatga tgagcttatt gccaatgctg 120

cttacattgg cactcctgga aagggatttc ttgctgctga tgagtcaaca gggacaattg 180

gcaagcgttt ggccagcatc agtgtagaga atgttgaatc caacaggcgt gctctaggga 240

gctgcttt 248

<210> 1898

<211> 243

<212> nucleic acid

<213> Glycine max

<400> 1898

cttctctctc aacaacttca ctttcttcct cctcgatcat gtctcacttc aagggcaagt 60

accatgatga gcttatcgcc aatgctgcgt acattggcac tcttgaaaag ggtattcttg 120

ctgctgatga gtcaacaggg acaattggca agcgtttggc cagcatcagt gtagagaaca 180

ttgaatccaa caggcgagct cttagggagc tgcttttcac tgctcctggt gttcttcaat 240

atc 243

<210> 1899

<211> 268

<212> nucleic acid

<213> Glycine max

<400> 1899

gccattaacc aggtcaatgg aaagaagcca tggtcactct ctttctcctt tggaagggca 60

cttcaacaga gcacccttaa ggcattggagt ggaaaagagg agaattgtgaa gaaggctcag 120

gaagcccttt tggttaagagc caaggccaac tcagaggcaa ctctgggaac ctacaaggggt 180

aacttcaaag cttgctgatg gtgcctcaga gagcctccag ttgaggacta caattactga 240

ttcaatctaa gtgcgggtag gaatcgggt 268

<210> 1900

<211> 253

<212> nucleic acid

<213> Glycine max

<400> 1900

tgctgatgag tcaacagggg caattggcaa gcgtttggcc agcatcagtg tagagaatgt 60

tgaatccaac aggcgtgctc ttagggagct gcttttcacc gctcccgggtg ctcgtaaata 120

tctcagtggt gtcacacctc ttaaggaaac tctctaccag agcacagctg caggcaagcc 180

ctttgtggaa gtcttgaatg aggcgtggtg tcttcctggc atcaagggtt acagggcaca 240

gtttcgcttg ctg 253

<210> 1901

<211> 228

<212> nucleic acid

<213> Glycine max

<400> 1901

cggctcgagg gtcacccccg gatccaattc tgctaagggt tcccctcagg tggttgcgga 60

gacactgtta gagcccttca gagaaccgtg cctgctgcag ttcttctat cgttttcttg 120

tctggtgggc agagtgagga ggaggcatcc gttaacctca atgccattaa ccagggtcaat 180

ggaaagaagc catggtcact ctctttctcc tttggaaggg cacttcaa 228

<210> 1902

<211> 252

<212> nucleic acid

<213> Glycine max

<400> 1902

caacttcacc gtctttcttc tcgatcatgt ctcaattcaa gggcaagtac catgatgagc 60

ttattgcaa tgctgcttac attggcactc ctggaaaggg tattcttgct gctgatgagt 120

caacagggac aattggcaag cgtttggcca gcatcagtg agagaatgtt gaatccaaca 180

ggcgtgctct tagggagctg cttttcaccc ctcccgggtg tcttaaatat ctcagtggtg 240

tcacaccttt tg 252

<210> 1903

<211> 245

<212> nucleic acid

<213> Glycine max

<400> 1903

gcaagtacca tgatgagctt atcgccaatg ctgcgtacat tggcactcct ggaaagggtta 120
 ttcttgaagc tgatgagtca acagggacaa ttggcaagcg tttggccagc atcagtgtag 180
 agaacattga atccaacagg cgagctctta gggagctgct tttcactgct cctgggtg 237

<210> 1907
 <211> 237
 <212> nucleic acid
 <213> Glycine max

<400> 1907

tctcgagccg attcggtctg agctaacctt cctctttttc ttctctcgca acaacttcac 60
 ctacttcctc ctgatcatg tcacacttca agggcaagta ccatgatgag cttatcgcca 120
 atgctgcgta cattggcact cctggaaagg gtattcttgc tgctgatgag tcaacaggga 180
 caattggcaa gcgtttggcc agcatcagtg tagagaacat tgaatccaac aggcgag 237

<210> 1908
 <211> 243
 <212> nucleic acid
 <213> Glycine max

<400> 1908

ctccttttga agggcacttc aacagagcac ccttaaggca tggggcggaa aataagagaa 60
 tgtgaagaag gctcaggaag cccttttggg aagagccaag gctaactcag aggcaactct 120
 gggaccctac aagggttaact cacagcttgc tgatggtgcc tcagagagcc tccatgtttc 180
 gaactacagc tactgatcaa tcgaagtggg tgttgtttga agagactagt gcgagtagga 240
 atc 243

<210> 1909
 <211> 249
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (45), (51), (62), (73), (121)... (122)
 <223> unsure at all n locations

<400> 1909

ctttcttcca acctctcaag tccaacctac ccctttttct tctcncacca ncttcaccgt 60

enttttcttc gancatgtct cacttcaagg gcaagtacca tgtgagctta ttgccaatgc 120
 nncttacatt ggcactcctg gaaagggat tcttgctgct gatgagtcaa cagggacaat 180
 tggcaagcgt ttggccagca tcagtgtaga gaatgaatcc aacaggcgtg ctcttaggga 240
 gctgctttt 249

<210> 1910
 <211> 242
 <212> nucleic acid
 <213> Glycine max

<400> 1910

cctctaacct acctcttttag cttctctctc aacaacttca ctttcttct cctcgatcat 60
 gtctcacttc aagggcaagt accatgatga gcttatcgcc aatgctgct acattggcac 120
 tcctggaaag ggtattcttg ctgctgatga gtcaacaggg acaattggca agcgtttggc 180
 cagcatcagt gtagagaaca ttcaatccaa caggcgagct tagggagctg cttttcactg 240
 ct 242

<210> 1911
 <211> 248
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (2), (44), (65), (82)... (83), (107), (221)
 <223> unsure at all n locations

<400> 1911

cnttgaagg gcacttcaac agagcaccct taaggcatgg gacngaaaag aagagaatgt 60
 gaagnaggct caggaagccc tnntggtaag agccaaggct aactcanagg caactctggg 120
 aacctacaag ggtaactcac agcttgctga tggcgctca gagagcctcc atgtttcgaa 180
 ctaagctact gatcaatcga agttgggtgt gtttgaagag nctagtgcga gtaggaatcg 240
 gtattatg 248

<210> 1912
 <211> 243
 <212> nucleic acid

<213> Glycine max

<400> 1912

ctccttttga agggcacttc aacagagcac ccttaaggca tgaggcggaa aagaagagaa 60
tgtgaagaag gctcaggaag ccctttttgt aagagccaag gctaactcag aggcaactct 120
gggaacctac aagggttaact cacagcttgc tgatgggtgcc tcagagagcc tccatgtttc 180
gaactacagc tattgtcaat cgagttgggg gtggtttaag agacctagtt cgagtaggaa 240
tcg 243

<210> 1913

<211> 261

<212> nucleic acid

<213> Glycine max

<400> 1913

gaagaaggct caggaagccc ttttggttaag agccaaggcc aactcagagg caactctggg 60
aacctacaag ggtaactcaa agcttgctga tgggtgcctca gagagcctcc atgttgagga 120
ctacaagtac tgatcaatct aagtgcgggt aggaatcggt attttatggg tacaaccgaa 180
ttttcttggt aatgagtatt gtgcttcgac ttttcccaga ataataatcg tttggaattt 240
tgctttttgt ttttcctagt g 261

<210> 1914

<211> 253

<212> nucleic acid

<213> Glycine max

<400> 1914

cggtctgagc gggtcgagcg gctcgagaac ctacctcttt ttcttctctc tcaacaactt 60
caccttcttc cacctcgata atgtctcact tcaagggcaa gtaccatgat gagcttatcg 120
ccaatgctgc gtacattggc actcctggaa agggatttct tgctgctgat gagtcaacag 180
ggacaattgg caagcgtttg gccagcatca gtgtagagaa cattgaatcc aacaggcgag 240
ctcttaggga gct 253

<210> 1915

<211> 260

<212> nucleic acid

<213> Glycine max

<400> 1915

aacagagcac ccttaaggca tggggcggaa aagaagagaa tgtgaagaag gctcaggaag 60
cccttttggg aagagccaag gctaactcag aggcaactct gggaacctac aagggttaact 120
cacagcttgc tgatggtgcc tcagagagcc tccatgtttc gaactacagc tactgatcaa 180
tcgaagttag tggtgtttga agagactagt gcgagtagga atcggtatta tgggtacaac 240
aaccgaattt cttgttgata 260

<210> 1916

<211> 257

<212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (74)

<223>

<400> 1916

aagcaacctc taacctacct ctttttcttc tctctcaaca acttcacctt cttcactctc 60
gatcatgaca cacntcaaag gcaagtacca tgatgagctt atcgccaatg ctgcgtacat 120
tggcactcct ggaaagggca ttcttgctgc tgatgagtca acagggacaa ttggcaagcg 180
tttggccagc atcagtgtag agaacattga atccacaggc gagctcttag ggagctgctt 240
ttcactgctc ctggtgt 257

<210> 1917

<211> 263

<212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (250), (258)

<223> unsure at all n locations

<400> 1917

ggagaatgtg aagaaggctc aggaagccct tttggtaga gccaaggcca actcagaggc 60
aactctggga acctacaagg gtaactcaaa gcttgctgat ggtgcctcag agagcctcca 120

tggtgaggac tacaagtact gatcaatcta agtgcgggta ggaatcggta ttttatgggt 180
acaaccgaat tttcttggtta atgagtattg tgcttcgact cttcccagaa taataatcgt 240
ttggaatttn cctttggnntt ccc 263

<210> 1918
<211> 260
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (33), (40), (83), (89), (157), (188) ... (189), (195) ... (196),
(200)
<223> unsure at all n locations

<400> 1918

ctctaacctt cctctttttt ttctctctca acnacttcan cttcttcctc ctgcgatcat 60
gtctcacttc aagggcaagt acnatgacng agcttatcgc caatgctgcg tacattggca 120
ctcctggaaa ggggtattctt gctgctgatg agtcaanagg gacaattggc aagcgtttgg 180
ccagcatnng tgtanngaan attgaatcca acaggcgagc tcttagggag ctgcttttca 240
ctgctcctgg tgttcttcaa 260

<210> 1919
<211> 221
<212> nucleic acid
<213> Glycine max

<400> 1919

gatggctctc atgacattca caagtgtgct gccgtcaccg agcgtgtcct tgcagcatgc 60
tacaaggctt tgaatgatca ccacgtcctt cttgagggta ccctattgaa gccaaacatg 120
gtcaccctcg gatccaattc tgctaagggt tcccctcagg tggttgcgga gacactgtta 180
gagcccttca gagaaccgtg cctgctgcag ttctgtctat c 221

<210> 1920
<211> 262
<212> nucleic acid
<213> Glycine max

<400> 1920

ccaactcaga ggcaactctg ggaacctaca agggtaactc aaagcttgct gatgggacct 60
cagagagcct ccatgttgag gactacaagt actgatcaat ctaagtgcgg gtaggaatcg 120
gtatatttatg ggtacaaccg aattttcttg ttaatgagta ttgtgcttcg actcttccca 180
gaataataat cgtttggaat tttgcttttt gttttcctag tgttccttca tatcaatttt 240
agtaattcgg tgtattgggc aa 262

<210> 1921
<211> 145
<212> nucleic acid
<213> Glycine max

<400> 1921

cgtttgacca gcatcagtgt agagaatgtt gaatccaaca ggcgtgctct tagggagctg 60
cttttcaccg ctcccggtgc tcttaaataat ctcatggtg tcatcctctt tgaggaaaact 120
ctctaccaga gcacagctgc aggca 145

<210> 1922
<211> 239
<212> nucleic acid
<213> Glycine max

<400> 1922

gctcaggaag cccttttggg aagagccaag gccaaactcag aggcaactct gggaagctac 60
aagggttaact caaagcttgc tgatgggtgcc tcagagagct ccatgttgag gactacaagt 120
actgatcaat ctaagtgcgg gtaggaatcg gtatatttatg ggtacaaccg aattttcttg 180
ttaatgagta ttgtgcttcg actcttccca gaataataat cgtttggaat tttgctttt 239

<210> 1923
<211> 238
<212> nucleic acid
<213> Glycine max

<400> 1923

tccaacctct caagtccaac ctaccccttt ttctgctccc accaacttca ccgtcttctt 60
cctcgatcat gtctcacttc aagggaagt accatgatga gcttattgcc aatgctgctt 120
acattggcac tcctggaaag ggtattcttg ctgctgatga gtcaacaggg acaattggca 180

agcgtttggc cagcatcagt gtagagaatg ttgaatccaa caggcgtgct cttaggga 238

<210> 1924
 <211> 210
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (36), (61)... (62), (173), (185), (200), (203), (206)
 <223> unsure at all n locations

<400> 1924

cttttttcca acctetcaag tccaacctac ccttntttct tctcccacca acttcaccgt 60
 nntttttcct cgatcatgtc tcaattcaag ggcaagtacc atgatgagct tattgccaat 120
 gctgcttaca ttggcactcc tggaaagggg ttcttgctgc tgatgagtca acngggacat 180
 ttggnagcgt ttgccaagcn ganatntaac 210

<210> 1925
 <211> 263
 <212> nucleic acid
 <213> Glycine max

<400> 1925

aacctetcaa gtccaacctt cccctttttc ttctcccacc aacttcaccg tctttttcct 60
 cgatcatgtc tcaattcaag ggcaagtacc atgatgagct tattgccaat gctgcttaca 120
 ttggcactcc tggaaagggg tatcttgctg ctgatgagtc aaccaggacc attggcaagc 180
 gttttgccaa catccgtgta gaagatgttg aattccacaa ggcggctcct aagggaactgg 240
 ttttcaacgg ttcccgtgct cct 263

<210> 1926
 <211> 271
 <212> nucleic acid
 <213> Glycine max

<400> 1926

gagaatgtga agaaggctca ggaagccctt ttggtaagag ccaaggctaa ctcagaggca 60
 actctgggaa cctacaaggg taactcacag cttgctgatg gtgcctcaga gagcctccat 120
 gtttcgaact acagctactg atcaatcgaa gttggtgttg tttgaagaga ctagtgcgag 180

taggaatcgg tattatgggt acaacaaccg aatttcttgt tgataagtat tattgtgggt 240
tgactcttcc cagaataatc gtttggaatt t 271

<210> 1927
<211> 241
<212> nucleic acid
<213> Glycine max

<400> 1927

acctacctct ttttcttctc tctcaacgac ttcttcttct tcttctctta tcatgtctta 60
cttcaagggc aagtaccatg atgagcttat tgccaatgct gcgtacattg gcagtctctg 120
aaaggggtatt cttgctgctg atgagtcagc agggacagtt ggcaatcgtt tggccacaat 180
cagtgtagac gacattgtat ccaacaggcg agctcttatg gagctgcttt tcaactgctcc 240
t 241

<210> 1928
<211> 274
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (2), (4), (9), (11), (35), (40), (47), (50), (55), (63), (65),
(79), (83), (146), (180), (212), (214) ... (215), (228), (235),
(247) ... (248), (255), (257) ... (263), (265)
<223> unsure at all n locations

<400> 1928

ancnacctnt ntttcttctc tctcaacaac ttcanccggn ttctctctcn atcangtctc 60
acntnaaggg gcaagtacna tgntgagctt atcgccaatg ctgcgtacat tggcactcct 120
ggaaagggta ttcttgctgc tgatgngtca acagggacaa ttggcaagcg tttggccagn 180
catcagtgtg gagaacattg aatccaacag gngnnctctt agggagcngg ctttnactgc 240
tcttggnnat ctcantnnnn nnntngtgtc gtcc 274

<210> 1929
<211> 228
<212> nucleic acid
<213> Glycine max

<400> 1929
 ctcaagtcca gcctaccctt ttttcttctc ccaccaactt caccgtcttc ttcctcgatc 60
 atgtctcact tcaagggcaa gtaccatgat gagcttattg tcaatgctgc ttacattggc 120
 actcctggaa aggggtattca tgctgctgat gagtcaacag ggacaattgg caagcgtttg 180
 tccagcatca gtgtaggcga tgttgaatcc aacaggcgtg ctcttagg 228

<210> 1930
 <211> 112
 <212> nucleic acid
 <213> Glycine max

<400> 1930
 gtcccaacga gccatctgag ctggctatcc atgagaatgc ctatggcttg gccagatacg 60
 ctgtcatatg ccaggagaat ggcttggttc ccattgttga gcctgagatc ct 112

<210> 1931
 <211> 190
 <212> nucleic acid
 <213> Glycine max

<400> 1931
 gcccttttgg taagagccaa ggctaactca gaggcaactc tgggaacctt caagggtaac 60
 tccacagcttg ctgatggtgc ctacagagagc ctccatgttt cgaactacag ctactgatca 120
 atcgaagtgg gtgttggttg aagagactag tgcgagtagg aatcggtatt atgggtacaa 180
 caaccgaatt 190

<210> 1932
 <211> 92
 <212> nucleic acid
 <213> Glycine max

<400> 1932
 ggccaactca gaggcaactc tggggaacct acaagggtaa ctcaaagctt gctgatggtg 60
 cctcagagag cctccatggt gaggactaca ag 92

<210> 1933
 <211> 232
 <212> nucleic acid

<213> Glycine max

<400> 1933

ggctaactca gaggcaactc tgggaacctc caagggtaac tcacagcttg ctgatgggtgc 60
ctcagagagc ctccatgttt cgaactacag ctactgatca atcgaagttg gtgttggttg 120
aagagactag tgcgagtagg aatcgggtatt atgggtacaa caaccgaatt tcttggtgat 180
aagtattatt gtggtttgac tcttcccaga ataatcgttt ggaattttgc tt 232

<210> 1934

<211> 148

<212> nucleic acid

<213> Glycine max

<400> 1934

ctctaacctc cctctttttc ttctctctca acaacttcac cttcttctc ctcgatcatg 60
tctcaacttca agggcaagta ccatgatgag cttatcgcca atgctgcgta cattggcact 120
cctggaaagg ctgtctggcc acagactt 148

<210> 1935

<211> 92

<212> nucleic acid

<213> Glycine max

<400> 1935

cggtctgaga gaatgttgaa tccatcaggc ggctgtcttag ggagatgctt ttaaccgcta 60
ccggtgatct taaatatctc agtgggtgtca tc 92

<210> 1936

<211> 144

<212> nucleic acid

<213> Glycine max

<400> 1936

ctacctcttt ttcttctctc tcaacaactt caccttcttc ctctctgac atgtctcact 60
tcaagggcaa gtaccatgat gagcttatcg ccaatgctgc gtacattggc actcctggaa 120
agggtattct tgctgctgat gact 144

<210> 1937

<400> 1942

ggggataaga ttaaagattc aacaatggcc tctgcttctg ctactcttct caagtcattct 60

cctgttcttg acaagtgcga gtnggtcaaa ggccagaccc ttcgccaacc tctcgtgaga 120

tgtaaccctt cctcagcatc agctctcacc atcaaagctg cttcctatgc tgacgagctc 180

gtcaaaaccg gccaaaacag tgggcttcac cgggggncgt gggaatttgg gngatggatg 240

nngtcaangg caaccttggg ggaaggnntt tggcntnnnt 280

<210> 1943

<211> 240

<212> nucleic acid

<213> Glycine max

<400> 1943

cggggataag attaaagatt caacaatggc ctctgcttct gctactcttc tcaagtcattc 60

tcctgttctt gacaagtgcg agtgggtcaa aggccagacc cttcgccaac ctctcgtgag 120

atgtaaccct cctcagcat cagctctcac catcaaagct gcttcctatg ctgacgagct 180

cgtcaaaacc gccaaaacag tggcctcacc ggggcgtggt attttggcga tggatgagtc 240

<210> 1944

<211> 174

<212> nucleic acid

<213> Glycine max

<400> 1944

ataagattaa agattcaaca atggcctctg cttctgctac tcttctcaag tcatctcctg 60

ttcttgacaa gtgcgagtgg gtcaaaggcc agacccttcg ccaacctctc gtgagatgta 120

acccttctc agcatcagct ctcaccatca aagctgcttc ctatgctgac gaggc 174

<210> 1945

<211> 234

<212> nucleic acid

<213> Glycine max

<400> 1945

aagattaaag attcaacaat ggccctctgt tctgctactc ttctcaagtc atctcctgtt 60

gttgacaagt gcgagtgggt caaaggccag acccttcgcc aacctctcgt gagatgtaac 120

ccttcctcag catcagctct caccatcaaa gctgcttcct atgctgacga gctcgtcaaa 180
accgcaaaa cagtggcctc accggggcgt ggtatcttgg cgatggatga gtca 234

<210> 1946
<211> 186
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (156), (180), (183)... (184)
<223> unsure at all n locations

<400> 1946

cggggataag attaaagatt caacaatggc ctctgcttct gctactcttc tcaagtcac 60
tcctgttctt gacaagtgcg agtgggtcaa aggccagacc cttcgccaac ctctcgtgag 120
atgtaaccct tcctcagcat cagctctcac catcanagct gcttcctatg ctgacgagan 180
cgnaaa 186

<210> 1947
<211> 175
<212> nucleic acid
<213> Glycine max

<400> 1947

cggggataag attaaagatt caacaatggc ctctgcttct gctactcttc tcaagtcac 60
tcctgttctt gacaagtgcg agtgggtcaa aggccagacc cttcgccaac ctctcgtgag 120
atgtaaccct tcctcagcat cagctctcac catcaaagct gcttcctatg ctgac 175

<210> 1948
<211> 168
<212> nucleic acid
<213> Glycine max

<400> 1948

cggggataag attaaagatt caacaatggc ctctgcttct gctactcttc tcaagtcac 60
tcctgttctt gacaagtgcg agtgggtcaa aggccagacc cttcgccaac ctctcgtgag 120
atgtaaccct tcctcagcat cagctctcac catcaaagct gcttccta 168

<210> 1949
 <211> 120
 <212> nucleic acid
 <213> Glycine max

<400> 1949

atcggtttcc cgccatatat ccaataagct ttaaccatgt ctgcctttgt tggaaagtac 60
 gcagatgagc ttatcaagaa tgccaagtac atagccacac ctgggaaggg catcttggca 120

<210> 1950
 <211> 256
 <212> nucleic acid
 <213> Glycine max

<400> 1950

caaagctcaa caccttgtct tcccagtggc tcgcccacaa ttcctttctct cctcgccgtg 60
 gatcctcttc tcgccgagtc tctcttccga tccgcgcttc ttcttaccaa cacgaactct 120
 tccaaaccgc caaatctatt gcatctcccg gtcgtggaat tcttgcaatt gatgaatcaa 180
 atgccacatg tgggaagcgt ttagcatcca ttggattgga caatactgag gtgaatcgcc 240
 aggcttatag gcaact 256

<210> 1951
 <211> 280
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (45)
 <223>

<400> 1951

accactttct gtttctcttc actctaattg ccatggcagc gtctncaaag ctcaacacct 60
 tgtcttcttc ccagtggatc gccacaatt ccttctctcc tcgccgtgga tcctcttctc 120
 gccgagtctc tcttccgacg cgcgcttctt cttaccaaca cgaactcgtc caaaccgcca 180
 aatccattgc atcaccgggc cgtggaattc ttgcaattga tgaatcaa at gccacatgtg 240
 ggaaacgatt agcatccatt ggattggaca ataccgaggt 280

<210> 1952
 <211> 268
 <212> nucleic acid
 <213> Glycine max

<400> 1952

ctttctcttt ctcttcaact taaagtctaa gcatccatgg ccatggcgct tgcaaagctc 60
 aacaccttgt cttcccagtg gatcgccac aattccttct ctctcgccg tggatcctct 120
 tctcgccgag tctctcttcc gatccgctt tcttcttacc aacacgaact cgtccaaacc 180
 gccaaatota ttgcatctcc cggtcgtgga attcttgcaa ttgatgaatc aaatgccaca 240
 tgtgggaagc gtttagcatc cattggat 268

<210> 1953
 <211> 262
 <212> nucleic acid
 <213> Glycine max

<400> 1953

actttctgtt tctcttcaact ctaatggcca tggcagcgct tgcaaagctg cacaccttgt 60
 cttcttccca gtggatcgcc cacaattcct tctctcctcg ccgtggatcc tcttctcgcc 120
 gagtctctct tccgatccgc gcttcttctt accaacaaga actcgtccaa accgccaaat 180
 ccattgcac acccgccgct ggaattcttg caattgatga atcaaatgcc acatgtggga 240
 aacgattagc atccattgga tt 262

<210> 1954
 <211> 262
 <212> nucleic acid
 <213> Glycine max

<400> 1954

ctctaagcat ccatggccat ggcgctctga aagctcaaca ccttgtcttc ccagtggatc 60
 gccacaatt ccttctctcc tcgccgtgga tcttcttctc gctgagttct gtcttccgat 120
 ccgcgcttct tcttaaccaac acgaactcgt ccaaaccgcc agatctattg catctcccgg 180
 tcgtggaatt cttgcaattg atgaatcaaa tgccacatgt gggaagcggt tagcatccat 240
 tggattggac aatactgagg tg 262

<210> 1955
 <211> 187
 <212> nucleic acid
 <213> Glycine max

<400> 1955

gcaaagctca acaccttgtc ttcttcccag tggatcgccc acaattcctt ctctcctcgc 60
 cgtcgatcct cttctcgccg agtctctctt ccgatccgcg cttcttctta ccaacacgaa 120
 ctcttccaaa ccgccaaatc cattgcatca cccggccgtg gaattcttgc aattgatgaa 180
 tccaaat 187

<210> 1956
 <211> 246
 <212> nucleic acid
 <213> Glycine max

<400> 1956

tacagcccca ctttctcttt ctctttctct tcaactctaa gtctaagcat ccatggccat 60
 ggcgtctgca aagctcaaca ccttgtcttc ccagtggatc gccacaatt cttctctctc 120
 tcgccgtgga tctctctctc gccgagtctc tcttccgatc cgcgcttctt cttaccaaca 180
 cgaactcgtc caaaccccca aatctattgc atctcccggt cgtggaattc ttgcaatgga 240
 tgaatc 246

<210> 1957
 <211> 289
 <212> nucleic acid
 <213> Glycine max

<400> 1957

ctccccaatt ctcaagccaa ccatgtcttc cttcaagagc aagtaccaag atgaactcat 60
 tgccaatgct gcttacattg gcaccccagg gaagggtatc cttgctgctg atgagtcaac 120
 tgggtacaatt ggcaagcgat tggccagcat taatgtcgag aatggtgaag caaataggcg 180
 tgctcttcgt gaactcctat tcaccacacc tgggtgcttt gagtgcctca gtgggtgtgat 240
 cttgtttgag gaaaccctat accaaaagac agcttcagga aaacccttc 289

<210> 1958
 <211> 284

<212> nucleic acid
 <213> Glycine max

<400> 1958

cctcaagcca accatgtctt ccttcaagag caagtaccaa gatgaactca ttgccaatgc 60
 tgcttacatt ggcaccccag ggaaggggtat ccttgctgct gatgagtcaa ctggtacaat 120
 tggcaagcga ttggccagca ttaatgtcgg aatgttgaag caaataggcg tgctcttcgt 180
 gaactcctat tcaccacacc tgggtgctttt gagtgcctca gtggtgtgat cttgtttgag 240
 gaaaccctat accaaaagac agcttcagga aaacccttcg taga 284

<210> 1959
 <211> 290
 <212> nucleic acid
 <213> Glycine max

<400> 1959

cttcgtcaaa accaaccaaa cccctcccca attctcaagc caaccatgtc ttccttcaag 60
 agcaagtacc aagatgaact cattgccaat gctgcttaca ttggcacccc aggaaggggt 120
 atccttgctg ctgatgagtc aactgggtaca attggcaagc gattggccag cattaatgtc 180
 gagaatgttg aagcaaatag gcgtgctctt cgtgaactcc tattcaccac acctgggtgct 240
 tttgagtgcc tcagtgggtg gatcttggtt gaggaacccc tataacaaaa 290

<210> 1960
 <211> 264
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (200)
 <223>

<400> 1960

cctccccaat tctcaagcca accatgtctt ccttcaagag caagtaccaa gatgaactca 60
 ttgccaatgc tgcttacatt ggcaccccag ggaaggggtat ccttgctgct gatgagtcaa 120
 ctggtacaat tggcaagcga ttggccagca ttaatgtcga gaatgttgaa gcaaataggc 180
 gtgctcttcg tgaactcctn ttcaccacac ctggtgcttt tgagtgcctc agtgggtgtga 240

tcttgtttga ggaaacccta tacc

264

<210> 1961
<211> 264
<212> nucleic acid
<213> Glycine max

<400> 1961

caattctcaa gccaaacctg tcttccttca agagcaagta ccaagatgaa ctcaattgcc 60

atgctgctta cattggcacc ccagggaagg gtatccttgc tgctgatgag tcaactggta 120

caattggcaa gcgattggcc agcattaatg tcgagaatgt tgaagcaaat aggcgtgctc 180

ttcgtgaact cctattcacc acacctgggtg cttttgagtg cctcagtggt gtgatcttgt 240

ttgaggaaac cctataccaa aaga 264

<210> 1962
<211> 274
<212> nucleic acid
<213> Glycine max

<400> 1962

gtctttctcac ttcgtcaaaa ccaaccaaac ccctcccca ttctcaagcc aacctgtct 60

tccttcaaga gcaagtacca agatgaactc attgccaatg ctgcttacat tggcacccca 120

gggaagggtta tccttgctgc tgatgagtca actggtacaa ttggcaagcg attggccagc 180

attaatgtcg agaatgttga agcaaatagg cgtgctcttc gtgaactcct attcaccaca 240

cctggtgctt tagagtgcct cagtgggtgtg atct 274

<210> 1963
<211> 240
<212> nucleic acid
<213> Glycine max

<400> 1963

cctccccaat tctcaagcca accatgtctt ccttcaagag caagtaccaa gatgaactca 60

ttgccaatgc tgcttacatt ggcacccag ggaagggtat ccttgctgct gatgagtcaa 120

ctggtacaat tggcaagcga ttggccagca ttaatgtcga gaatgttgaa gcaaataaggc 180

gtgctcttcg tgaactccta ttcaccacac ctggtgcttt tgagtgcctc agtgggtgtga 240

<210> 1964
 <211> 280
 <212> nucleic acid
 <213> Glycine max

 <400> 1964

 ccgttgtctt ctcacttcgt caaaaccaac caaaccctc cccaattctc aagccaacca 60
 tgtcttcctt caagagcaag taccaagatg aactcattgc caatgctgct tacattggca 120
 cccaggggaa ggggtatcctt gctgctgatg agtcaactgg tacaattggc aagcgattgg 180
 ccagcattaa tgtcgagaat gttgaagcaa ataggcgtgc tcttcgtgaa ctcctattca 240
 ccacacctgg tgcttttgag tgcctcagtg gtgtgatctt 280

<210> 1965
 <211> 277
 <212> nucleic acid
 <213> Glycine max

 <400> 1965

 cgatgtcttc tcacttcgtc aaaaccaacc aaaccctcc ccaattctca agccaaccat 60
 gtcttccttc aagagcaagt accaagatga actcattgcc aatgctgctt acattggcac 120
 cccaggggaag ggtatccttg ctgctgatga gtcaactggg acaattggca agcgattggc 180
 cagcattaat gtcgagaatg ttgaagcaaa taggcgtgct cttcgtgaac tcctattcac 240
 cacacctggg gcttttgagt gcctcagtggt tgtgatc 277

<210> 1966
 <211> 266
 <212> nucleic acid
 <213> Glycine max

 <400> 1966

 ccgttgtctt ctcacttcgt caaaaccaac caaaccctc cccaattctc aagccaacca 60
 tgtcttcctt caagagcaag taccaagatg aactcattgc caatgctgct tacattggca 120
 cccaggggaa ggggtatcctt gctgctgatg agtcaactgg tacaattggc aagcgattgg 180
 ccagcattaa tgtcgagaat gttgaagcaa ataggcgtgc tcttcgtgaa ctcctattca 240
 ccacacctgg tgcttttgag tgctc 266

<210> 1967
 <211> 260
 <212> nucleic acid
 <213> Glycine max

<400> 1967

cttctcactt cgtcaaaacc aaccaaacc ctccccaatt ctcaagccaa ccatgtcttc 60
 cttcaagagc aagtaccaag atgaactcat tgccaatgct gcttacattg gcaccccagg 120
 gaagggatc cttgctgctg atgagtcaac tgggtacaatt ggcaagcgat tggccagcat 180
 taatgtcgag aatgttgaag caaataggcg tgctcttcgt gaactcctat tcaccacacc 240
 tgggtgctttt gagtgcctca 260

<210> 1968
 <211> 247
 <212> nucleic acid
 <213> Glycine max

<400> 1968

cgttgtcttc tcaacttcgtc aaaaccaacc aaaccctcc ccaattctca agccaaccat 60
 gtcttccttc aagagcaagt accaagatga actcattgcc aatgctgctt acattggcac 120
 cccaggggaag ggtatccttg ctgctgatga gtcaactggg acaattggca agcgattggc 180
 cagcattaat gtcgagaatg ttgaagcaaa taggcgtgct ctctgtgaac tcctattcac 240
 cacacct 247

<210> 1969
 <211> 272
 <212> nucleic acid
 <213> Glycine max

<400> 1969

cctcgagcga atcggtcga gcgttgtctt ctcaactcgt caacgaccaa ccaaaccct 60
 cccaattct caagccaacc atgtcgtcct tcaagagcaa gtaccaagat gaactcattg 120
 ccaatgctgc ttacattggc accccaggga agggatcct tgctgctgat gagtcaactg 180
 gtacaattgg caagcgattg gccagcatta atgtcgagaa tgttgaagca aataggcgtg 240
 ctcttcgtga actcctattc accacacctg gt 272

<210> 1976
 <211> 212
 <212> nucleic acid
 <213> Glycine max

 <220>
 <221> unsure
 <222> (8), (23), (79), (88), (111), (151), (190), (198) ... (199)
 <223> unsure at all n locations

 <400> 1976

 ccgttgtnnt ctcaattcgt canaaccaac caaaccctc cccaattctc aagccaacca 60
 tgtcttcctt caagagcang taccaagntg aactcattgc caatgctgct nacattggca 120
 cccaggggaa ggggtatcctt gctgctgatg ngtcaactgg tacaattggc aagcgattgg 180
 ccagcattan tgtcgagnnt gttgaagcaa at 212

 <210> 1977
 <211> 147
 <212> nucleic acid
 <213> Glycine max

 <400> 1977

 ccaattctca agccaaccat gtcttccttc aagagcaagt accaagatga actcattgcc 60
 aatgctgctt acattggcac cccaggggaag ggtatccttg ctgctgatga gtcaactggc 120
 acaattggca agcgattggc cagcatt 147

 <210> 1978
 <211> 276
 <212> nucleic acid
 <213> Glycine max

 <400> 1978

 caaggttgaa catcatcaca ttctgtacaac aaccaaccaa acccctccac aattctcagc 60
 caaccatgtc ttcttcacac agcaagtacc aagatgaact cattgccaat gctgcttaca 120
 ttggcacccc aggggaagggc ctcttgctg ctgatgaatc actggtacaa ttggcaagcg 180
 cttggccagc attaattgtc agaattgtga agcacatagg cgtgctcttc gtgaactcct 240
 attcaccaca cctgggtgctt ttgagtgcct cagtgg 276

<210> 1979
 <211> 272
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (54), (71), (99), (219)
 <223> unsure at all n locations

<400> 1979

gcctctgcat cagcatctct gctcaagtct tcacttggtc ttgacaagtc tgantgggtg 60
 aagggaacaa nccttcgcca accttctgca tcagttgtga gatgcaaccc caccacccca 120
 tcaggcctca ccatcagagc tggttcctat gctgatgagc tcgttaagac cgcgaaaaca 180
 gtggcttcac cagggagggg tattttggcc atggatgant ccaatgctac ctgtgggaag 240
 cgtttggtt caattgggct agagaacact ga 272

<210> 1980
 <211> 295
 <212> nucleic acid
 <213> Glycine max

<400> 1980

tgcagtagtg ctaagtgcta acacctgcag tgaacaatgg cctctgcatc agcatctctg 60
 ctcaagtctt cacttggttct tgacaagtct gagtgggtga agggacaaac ccttcgccaa 120
 ccttctgcat cagttgtgag atgcaacccc accaccccat caggcctcac catcagagct 180
 ggttcctatg ctgatgagct cgtaagacc gcgaaaacag tggcttcacc agggaggggt 240
 attttgcca tggatgagtc caatgctacc tgtgggaagc gtttggttc aattg 295

<210> 1981
 <211> 286
 <212> nucleic acid
 <213> Glycine max

<400> 1981

gcagtgaaca atggcctctg catcagcatc tctgctcaag tcttcacttg ttcttgacaa 60
 gtctgagtgg gtgaaggagc aaacccttcg ccaaccttct gcatcagttg tgagatgcaa 120
 cccaccacc ccatcaggcc tcaccatcag agctgggtcc tatgctgatg agctcgtaa 180

gaccgcgaaa acagtggctt caccagggag gggatatttg gccatggatg agtccaatgc 240
tacctgtggg aagcgtttgg cttcattggg ctagagacat gaagct 286

<210> 1982
<211> 229
<212> nucleic acid
<213> Glycine max

<400> 1982

catctctgct caagtcttca cttgttcttg acaagtctga gtgggtgaag ggacaaaccc 60
ttcgccaacc ttctgcatca gttgtgagat gcaacccac cccccatca ggctcacca 120
tcagagctgg ttctatgct gatgagctcg ttaagaccgc gaaaacagtg gcttcaccag 180
ggaggggtat tttggccatg gatgagtcca atgctacctg tgggaagcg 229

<210> 1983
<211> 263
<212> nucleic acid
<213> Glycine max

<400> 1983

gacaagtctg agtgggtgaa gggacaaaca cttcgccaac cttctgctgc atcagttgtg 60
agatgcaacc ccaccacccc atcaggcctc accatcagag ctggttccta tgctgatgag 120
ctcgtaaga ccgcgaaacc agtggcttca ccaggaggag gtattatggc catggatgag 180
tccaatgcta cctgtgggaa gcgtttggct tcaattgggc tagagaacac tgaagctaac 240
cgccagcata ccgtaccctc ctt 263

<210> 1984
<211> 274
<212> nucleic acid
<213> Glycine max

<400> 1984

gcagtagtgc taagtgctaa cacctgcagt gaacaatggc ctctgcatca gcatctctgc 60
tcaagtcttc acttgttctt gccagtctg agtgggtgaa gggacaaacc cttcgccaac 120
cttctgcate agttgtcaga tgcaacccca ccaccctac aggcctcacc atcagagctg 180
gttctctatgc tgatgagctc gttaagaccg cgaaaacagt ggcttcacca gggaggggta 240

ttttggccat ggatgagtcc actgctacct gtgg

274

<210> 1985
 <211> 293
 <212> nucleic acid
 <213> Glycine max
 <220>
 <221> unsure
 <222> (9), (29), (64), (132), (168), (281)
 <223> unsure at all n locations

<400> 1985

tacaaaggnt gctgtaggag ataagattnc agtagtgcta agtgctaaca cctgcagtga 60
 acantggcct ctgcatcagc atctctgctc aagtcttcac ttgttcttga caagtctgag 120
 tgggtgaagg gncaaaccct tcgccaacct tctgcatcag ttgtgagntg caaccccacc 180
 accccatcag gctcaccat cagagctggg tccatgctg atgagctcgt taagaccgcg 240
 aaaacagtgg cttcaccaag gaggggtatt ttggccatgg ntgagtccaa tgc 293

<210> 1986
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<400> 1986

gattgcagta gtgctaagtg ctaacacctg cagtgaacaa tggcctctgc atcagcatct 60
 ctgctcaagt cttcacttgt tcttgacaag tctgagtggg tgaagggaaca aacccttcgc 120
 caaccttctg catcagttgt gagatgcaac cccaccaccc catcaggcct caccatcaga 180
 gctggttcct atgctgatga gctcgtaag accgcgaaaa cagtggcttc accagggagg 240
 ggtatttttg ccatggatga gtcca 265

<210> 1987
 <211> 282
 <212> nucleic acid
 <213> Glycine max

<400> 1987

aaaggttgct gtaggagata agattgcagt agtgctaagt gctaacacct gcagtgaaca 60

atggcctctg catcagcatc tctgctcaag tcttcacttg ttcttgacaa gtctgagtgg 120
 gtgaagggac aaacccttcg ccaacccttct gcatcagttg tgagatgcaa cccaccacc 180
 ccatcaggcc tcaccatcag agctgggtcc tatgctgatg agctcgtaa gaccgcgaaa 240
 acagtggctt caccaggag gggatatttg gccatggatg ag 282

<210> 1988
 <211> 251
 <212> nucleic acid
 <213> Glycine max

<400> 1988

tagtgctaag tgctaacacc tgcagtgaac aatggcctct gcatcagcat ctctgctcaa 60
 gtcttcactt gttcttgaca agtctgagtg ggtgaaggga caaacccttc gccaaccttc 120
 tgcacagtt gtgagatgca accccaccac cccatcaggc ctcaccatca gagctgggtc 180
 ctatgctgat gagctcgtaa agaccgcgaa aacagtggct tcaccaggga ggggtatttt 240
 ggacatggat g 251

<210> 1989
 <211> 273
 <212> nucleic acid
 <213> Glycine max

<400> 1989

cggctcgagg gagataagat tgcagtagtg ctaagtgcta acacctgcag tgaacaatgg 60
 cctctgcac agcatctctg ctcaagtctt cacttggtct tgacaagtct gagggggtga 120
 agggacaaac ccttcgcaa ctttctgcat cagttgtgag atgcaacccc accaccccat 180
 caggcctcac catcagagct gggtcctatg ctgatgagct cgttaagacc gcgaaaacag 240
 tggtttcacc agggaggggt attttgcca tgg 273

<210> 1990
 <211> 286
 <212> nucleic acid
 <213> Glycine max

<400> 1990

cagattgcag tagtgctaag tgctaacacc tgcagtgaac aatggcctct gcatcagcat 60

ctctgctcaa gtcttcaactt gttcttgaca agtctgagtg ggtgaagga caaacccttc 120
 gccaaccttc tgcattcagtt gtgagatgca accccaccac cccatcaggc ctcaccatca 180
 gagctgggtc ctatgctgat gagctcgta agaccgcga aacagtggct tcaccagggc 240
 ggggtattcc tcccatggat gagctcaatg ctccctgtgg gaagcg 286

<210> 1991
 <211> 272
 <212> nucleic acid
 <213> Glycine max

<400> 1991
 caaagggttc tgtaggagat aagattgcag tagtgctaag tgctaacc tgcagtgaac 60
 aatggcctct gcatcagcat ctctgctcaa gtcttcaactt gttcttgaca agtctgagtg 120
 ggtgaagga caaacccttc gccaaccttc tgcattcagtt gtgagatgca accccaccac 180
 cccatcaggc ctcaccatca gagctgggtc ctatgctgat gagctcgta agaccgcga 240
 aacagtggct tcaccagga ggggtatttt gg 272

<210> 1992
 <211> 280
 <212> nucleic acid
 <213> Glycine max

<400> 1992
 tacaaaggtt gctgtaggag ataagattgc agtagtgcta agtgctaaca cctgcagtga 60
 acaatggcct ctgcatcagc atctctgctc aagtcttcac ttgttcttga caagtctgag 120
 tgggtgaagg gacaaacct tcgccaacct tctgcatcag ttgtgagatg caaccacc 180
 acccatcag gctcaccat cagagctggg tcctatgctg atgagctcgt taagaccgcg 240
 aaaacagtgg cttcaccagg gaggggtatt ttggccatgg 280

<210> 1993
 <211> 284
 <212> nucleic acid
 <213> Glycine max

<400> 1993
 aagggtgctg taggagataa gattgcagta gtgctaagt ctaacacctg cagtgaacaa 60

tggcctctgc atcagcatct ctgctcaagt cttcacttgt tcttgacaag tctgagtggg 120
tgaagggaca aacccttcgc caaccttctg catcagttgt gagatgcaac cccaccaccc 180
catcaggcct caccatcaga gctggttcct atgctgatga gctcgttaag accgcgaaaa 240
cagtggttca ccagggaggg gtattttggc catggatgag tcca 284

<210> 1994
<211> 274
<212> nucleic acid
<213> Glycine max

<400> 1994

tacaaaggtt gctgtaggag ataagattgc agtagtgcta agtgctaaca cctgcagtga 60
acaatggcct ctgcatcagc atctctgctc aagtcttcac ttgttcttga caagtctgag 120
tgggtgaagg gacaaaccct tcgccaacct tctgcatcag ttgtgagatg caaccccacc 180
accccatcag gcctcaccat cagagctggg tcctatgctg atgagctcgt taagaccgcg 240
aaaacagtgg cttcaccagg gaggggtatt ttgg 274

<210> 1995
<211> 252
<212> nucleic acid
<213> Glycine max

<400> 1995

aggagataag attgcagtag tgctaagtgc taacacctgc agtgaacaat ggctcttgca 60
tcagcatctc tgetcaagtc ttcacttggt cttgacaagt ctgagtgggt gaagggacaa 120
acccttcgcc aaccttctgc atcagttgtg agatgcaacc ccaccacccc atcaggcctc 180
accatcagag ctggttccta tgctgatgag ctcgttaaga ccgcgaaaac agtggcttca 240
ccagggaggg gt 252

<210> 1996
<211> 269
<212> nucleic acid
<213> Glycine max

<400> 1996

caaaggttgc tgtaggagat aagattgcag tagtgctaag tgctaacacc tgcagtgaac 60

acaatggcct ctgcatcagc atctctgctc aagtcttcac ttgttcttga caagtctgag 120
 tgggtgaagg gacaaaccct tcgccaacct tctgcatcag ttgtgagatg caaccccacc 180
 acgccatcag gcctcaccat cagagctggg tcctatgctg atgagctcgt taagaccgcg 240
 aaaacagtgg cttcaccagg gaggggt 267

<210> 2003
 <211> 248
 <212> nucleic acid
 <213> Glycine max

<400> 2003

gattgcagta gtgctaagtg ctaacacctg cagtgaacaa tggcctctgc atcagcatct 60
 ctgctcaagt cttcacttgt tcttgacaag tctgagtggg tgaagggaca aacccttcgc 120
 caaccttctg catcagttgt gagatgcaac cccaccaccc catcaggcct caccatcaga 180
 gctggttcct atgctgatga gctcgttatc accgcgaaaa cagtggcttc accagggagg 240
 ggtatttt 248

<210> 2004
 <211> 258
 <212> nucleic acid
 <213> Glycine max

<400> 2004

tacaaagggt gctgtaggag ataagattgc agtagtgcta agtgctaaca cctgcagtga 60
 acaatggcct ctgcatcagc atctctgctc aagtcttcac ttgttcttga caagtctgag 120
 tgggtgaagg gacaaaccct tcgccaacct tctgcatcag ttgtgagatg caaccccacc 180
 accccatcag gcctcaccat cagagctggg tcctatgctg atgagctcgt taagaccgcg 240
 aaaacagtgg cttcacca 258

<210> 2005
 <211> 249
 <212> nucleic acid
 <213> Glycine max

<400> 2005

aggttgctgt aggagataag attgcagtag tgctaagtgc taatgcctgc agtgaacaat 60

acaatggcct ctgcatcagc atctctgctc aagtcttcac ttgttcttga caagtctgag 120
 tgggtgaagg gacaaaccct tcgccaacct tctgcatcag ttgtgagatg caaccccacc 180
 accccatcag gcctcaccat cagagctggg tcctatgctg atgagctcgt taagaccgcg 240
 aaaacagtgg cttcac 256

<210> 2009
 <211> 253
 <212> nucleic acid
 <213> Glycine max

<400> 2009

ggttgctgta ggagataaga ttgcagtagt gctaagtgt aacacctgca gtgaacaatg 60
 gcctctgcat cagcatctct gctcaagtct tcaattgttc ttgacaagtc tgagtgggtg 120
 aagggacaaa cccttcgcca accttctgca tcagttgtga gatgcaaccc caccacccca 180
 tcaggcctca ccatcagagc tggttcctat gctgatgagc tcgttaagac cgcgaaaaca 240
 gtgggttcac cag 253

<210> 2010
 <211> 273
 <212> nucleic acid
 <213> Glycine max

<400> 2010

tacaaagggt gctgtaggag ataagattgc agtagtgcta agtgctaaca cctgcagtgt 60
 acaatggcct ctgcatcagc atctctgctc aagtcttcac ttgttcttga caagtctgag 120
 tgggtgaagg gacaaaccct tcgccaacct tctgcatcag ttgtgagatg caaccccacc 180
 accccatcag gcctcaccat cagagctggg tcctatgctg atgagctcgt taagatggcg 240
 aaaacagtgg cttcaccagg gaggggtatt ttg 273

<210> 2011
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<400> 2011

aaaggttgct gtaggagata agattgcagt agtgctaagt gctaacacct gcagtgaaca 60

<400> 2014

caaaggttgc tgtaggagat aagattgcag tagtgctaag tgctaacacc tgcagtgaac 60

aatggcctct gcatcagcat ctctgctcaa gtcttcagtt gttcttgaca agtctgagtg 120

ggtgaaggga caaaccttc gccaaccttc tgcattcagtt gtgagatgca accccaccac 180

cccatcaggc ctcaccatca gagctgggtc ctatgctgat gagctcgta agaccgcga 240

aacagtggct tcaccatgga ggggt 265

<210> 2015

<211> 255

<212> nucleic acid

<213> Glycine max

<400> 2015

atacaaaggt tgctgtagga gataagattg cagtagtgct aagtgctaac acctgcagtg 60

aacaatggcc tctgcatcag catctctgct caagtcttca cttgttcttg acaagtctga 120

gtgggtgaag ggacaaacc ttcgccaaacc ttctgcatca gttgtgagat gcaacccac 180

caccccatca ggctcacca tcagagctgg ttcttatgct gatgagctcg ttaagaccgc 240

gaaaacagtg gcttc 255

<210> 2016

<211> 264

<212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (195)...(196), (258)

<223> unsure at all n locations

<400> 2016

caaaggttgc tgtaggagat aagattgcag tagtgctaag tgctaacacc tgcagtgaac 60

aatggccttc tgcattcagca tctctgctca agtcttcaact tgttcttgac aagtctgagtg 120

gggtgaaggg acaaaccctt cgccaacctt ctgcatcagtt gtgagatgc aacccacca 180

cccatcagg cctcnnctc agagctgggt cctatgctga tgagctcggt aagaccgcga 240

aaacagtggc ttcaccangg aggg 264

<210>	2023
<211>	254
<212>	nucleic acid
<213>	Glycine max

acaaaggttg ctgtaggaga taagattgca gtagtgctaa gtgctaacac ctgcagtga 60
 caatggcctc tgcattcaga tctctgctca agtcttcact tgttcttgac aagtctgagt 120
 ggggtgaagg acaaaccctt cgccaaccct ctgcattcagt tgtgagatgc aacccaccca 180
 ccccatcagg cctcaccatc agagctgggt cctatgctga tgagctcgtt aagaccgca 240
 aaacgtggct tcacc 255

<210> 2029
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (96)
 <223>

<400> 2029
 cggtctgagc aaaggttgct gtaggagata agattgcagt tcatgctaag tgctaacacc 60
 tgcagtgaac aatggcctct gcatcagaat ctctgnetca gtcttcactt gttcttgaca 120
 agtctgagtg ggtgaaggga caaacccttc gccaaccttc tgcattcagt gtgagatgca 180
 acccaccac cccatcaggc ctcaccatca gagctgggtc ctatgctgat gagctcgta 240
 agaccgcaa aacagtggct tcacc 265

<210> 2030
 <211> 241
 <212> nucleic acid
 <213> Glycine max

<400> 2030
 tacaaaggtt gctgtaggag ataagattgc agtagtgcta agtgctaaca cctgcagtga 60
 acaatggcct ctgcattcag atctctgctc aagtcttcac ttgttcttga caagtctgag 120
 tgggtgaagg gacaaaccct tcgccaacct tctgcattcag ttgtgagatg caacccacc 180
 acccatcag gctcaccat cagagctgggt tcctatgctg atgagctcgt taagaccgca 240
 a 241

<210> 2031
 <211> 266

<212> nucleic acid
<213> Glycine max

<400> 2031

caaaggttgc tgtaggagat aagattgcag tagtgctaag tgctaacacc tgcagtgaac 60
aatggcctct gcatcagcat ctctgctcaa gtcttcactt gttcttgaca agtctgagtg 120
gggtgaaggga caaaccttcc gccaaccttc tgcattcagtt gtgagatgca accctacaac 180
cccatcaggc ctcaccatca gagctgggtc ctatgctgat gagctcggtt agaccgcgaa 240
aacagtggct tcaccaggga gggggtt 266

<210> 2032
<211> 277
<212> nucleic acid
<213> Glycine max

<400> 2032

taagattgca gtagtgctaa gtgctaacac ctgcagtga caatggcctc tgcattcagca 60
tctctgctca agtcttcact tggtcttgac aagtctgagt ggggtgaagg acaaacctt 120
cgccaacctt ctgcattcag ttgtgagtga accccaccac cccattcaggc ctcaccatca 180
gagctgggtc tatgctgatg agctcggtta gaccgcgaaa acagtgggtc accagggagg 240
gggtattttgg ccatggatga gtccattgta cctgtgg 277

<210> 2033
<211> 261
<212> nucleic acid
<213> Glycine max

<400> 2033

tacaaaggtt gctgtaggag ataagattgc agtagtgcta agtgctaaca cctgcagtga 60
acaatggcct ctgcattcag atctctgctc aagtcttcac ttgttcttga caagtctgag 120
tggtgaagg gacaaacct tcgccacct tctgcattcag ttgtgagatg caaccacc 180
acccattcag gctcaccat cagagctggg tcctatgctg agagctcggt aagaccgcga 240
aaacagtggc ttcaccaggg a 261

<210> 2034
<211> 237

<400> 2037
 tacaaagggtt gctgtaggag ataagattgc agtagtgcta agtgctaaca cctgcagtga 60
 acaatggcct ctgcatcagc atctctgctc aagtcttcac ttgttcttga caagtctgag 120
 tgggtgaagg gacaaaccct tcgccaacct tctggcatca gttgtgagat gcaaccccac 180
 cccccatca ggctcacca tcagagctgg ttcttatgct gatgagctcg ttaagaccgc 240
 gaaaacagtg gcttcacc 258

<210> 2038
 <211> 234
 <212> nucleic acid
 <213> Glycine max

<400> 2038
 acaaagggtt ctgtaggaga taagattgca gtagtgctaa gtgctaacac ctgcagtga 60
 caatggcctc tgcattcagca tctctgctca agtcttcact tgttcttgac aagtctgagt 120
 ggggtgaaggg acaaaccctt cgccaacctt ctgcatcagt tgtgagatgc aaccccacca 180
 ccccatcagg cctcaccatc agagctgggtt cctattgctga tgagctcggtt aaga 234

<210> 2039
 <211> 247
 <212> nucleic acid
 <213> Glycine max

<400> 2039
 tacaactaca aagggttgctg taggagataa gatattgaag tagtgctaag tgcctaacac 60
 ctgcagtga caatggcctc tgcattcagca tctcttctca agtcttcact tgttcttgac 120
 aagtctgagt ggggtgaaggg acaaacactt cgccaacctt ctgctgcac agttgtgaga 180
 tgcaacccca ccaccccatc aggctcaca atcagagctg gttcttatgc tgatgagctc 240
 gttaaga 247

<210> 2040
 <211> 260
 <212> nucleic acid
 <213> Glycine max

<400> 2040

<211> 238
 <212> nucleic acid
 <213> Glycine max

 <400> 2043

 gggtgctgta ggagataaga tattgaagta gtgctaagtg cctaacacct gcagtgaaca 60
 atggcctctg catcagcatc ttttctcaag ttttcacttg ttcttgacaa gtctgagtgg 120
 gtgaagggac aaacacttcg ccaaccttct gctgcatcag ttgtgagatg caacccccacc 180
 accccatcag gcctcaccat cagagctggg tcctatgctg atgagctcgt taagaccg 238

<210> 2044
 <211> 260
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (62), (106), (157), (163), (206), (254)
 <223> unsure at all n locations

 <400> 2044

 ctacaaaggt tgctgtagga gataagattg cagtagtgct aagtgctaac acctgcagtg 60
 ancaatggcc tctgcatcag catctctgct caagtcttca cttgtncttg acaagtctga 120
 gtgggtgaag ggacaaaccc ttcgccaacc ttctgentca gtngtgagat gcaacccccac 180
 cccccatca ggctcacca tcaganctgg ttctatgct gatgagtcgt taagaccgcg 240
 aaaacagtgg ttcnccaggg 260

<210> 2045
 <211> 223
 <212> nucleic acid
 <213> Glycine max

<400> 2045

 aaaggttgct gtaggagata agattgcagt agtgctaagt gctaacacct gcagtgaaca 60
 atggcctctg catcagcatc tctgctcaag ttttcacttg ttcttgacaa gtctgagtgg 120
 gtgaagggac aaacccttcg ccaaccttct gcatcagttg tgagatgcaa cccaccacc 180
 ccatcaggcc tcaccatcag agctgggtcc tatgctgatg agc 223

<210> 2049
<211> 245
<212> nucleic acid
<213> Glycine max

<400> 2049

tacaactaca aaggttgctg taggagataa gatattgaag tagtgctaag tgcctaacac 60
ctgcagtga caatggcctc tgcacagca tctcttctca agtcttcaact tgttcttgac 120
aagtctgagt ggggtgaaggg acaaacactt cgccaacctt ctgctgcatc agttgtgaga 180
tgcaacccca ccaccccatc aggccctcaca atcagagctg gttcctatgc tgatgagctc 240
gttaa 245

<210> 2050
<211> 263
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (221), (235)
<223> unsure at all n locations

<400> 2050

tacaactaca aaggttgctg taggagataa gatattgaag tagtgctaag tgcctaacac 60
ctgcagtga caatggcctc tgcacagca tctcttctca agtcttcaact tgttcttgac 120
aagtctgagt ggggtgaaggg acaaacactt cgccaacctt ctgctgcatc agttgtgaga 180
tgcaacccca ccaccccatc aggccctcaca atcagagctg nttcctatgc tgatncagct 240
cgtaagacc gcgaaaacag tgg 263

<210> 2051
<211> 245
<212> nucleic acid
<213> Glycine max

<400> 2051

gcatacaact acaaagggtt ctgtaggaga taagatattg aagtagtgct aagtgcctaa 60
cacctgcaact gaacaatggc ctctgcatca gcatctcttc tcaagtcttc acttgttctt 120
gacaagtctg agtgggtgaa gggacaaaca cttcgccaac cttctgctgc atcagttgtg 180

agatgcaacc ccaccacccc atcaggcctc accatcagag ctggttccta tgctgatgag 240
ctcgt 245

<210> 2052
<211> 220
<212> nucleic acid
<213> Glycine max

<400> 2052

tacaaagggt gctgtaggag ataagattgc agtagtgcta agtgctaaca cctgcagtga 60
acaatggcct ctgcatcagc atctctgctc aagtcttcac ttgttcttga caagtctgag 120
tgggtgaagg gacaaaccct tcgccaacct tctgcatcag ttgtgagatg caaccccacc 180
accccatcag gcctcaccat cagagctggg tcctatgctg 220

<210> 2053
<211> 221
<212> nucleic acid
<213> Glycine max

<400> 2053

cggtctgagg ttgtgtagg agataagatt gcagtagtgc taagtgctaa cacctgcagt 60
gaacaatggc ctctgcatca gcctctctgc tcaagtcttc acttgcttctt gacaagtctg 120
agtgggtgaa gggacaaacc ctctgccaac cttctgcatc agttgtgaga tgcaacccca 180
ccaccccatc aggcctcacc atcagagctg gttcctatgc t 221

<210> 2054
<211> 256
<212> nucleic acid
<213> Glycine max

<400> 2054

caactacaaa ggttgctgta ggagataaga tattgaagta gtgctaagtg cctaacacct 60
gcagtgaaca atggcctctg catcagcatc tcttctcaag tcttcacttg ttcttgacaa 120
gtctagtggg tgaagggaca aacacttcgc caaccttctg ctgcatcagt tgtgagatgc 180
aaccacacca ccccatcagg cctcaccatc agagctgggt cctatgctga tgagctcgtt 240
aagaccgcga aaacag 256

603230 694660

<210> 2055
 <211> 288
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (157), (242)... (243)
 <223> unsure at all n locations

<400> 2055

tacaactaca aagggttgctg taggagataa gatattgaag tagtgctaag tgcctaacac 60
 ctgcagtga caatggcctc tgcacagca tctcttctca agtcttcact tgttcttgac 120
 aagtctgagt ggggtgaaggg acaaacactt cgccaanctt ctgctgcac agttgtgaga 180
 tgcaacccca ccaccccatc agggccttca ccatcagagc tggttcccta tgctgatgag 240
 cnnctgtaag accgcgaaaa cagtggcttc accagggagg ggtatttc 288

<210> 2056
 <211> 236
 <212> nucleic acid
 <213> Glycine max

<400> 2056

tacaactaca aagggttgctg taggagataa gatattgaag tagtgctaag tgcctaacac 60
 ctgcagtga caatggcctc tgcacagca tctcttctca agtcttcact tgttcttgac 120
 aagtctgagt ggggtgaaggg acaaacactt cgccaacctt ctgctgcac agttgtgaga 180
 tgcaacccca ccaccccatc aggcctcacc atcagagctg gttcctatgc tgatga 236

<210> 2057
 <211> 240
 <212> nucleic acid
 <213> Glycine max

<400> 2057

caactacaaa ggttgctgta ggagataaga tattgaagta gtgctaagt cctaacacct 60
 gcagtgaaca atggcctctg catcagcatc tcttctcaag tcttcacttg ttcttgacaa 120
 gtctgagtgg gtgaagggac attcacttcg ccaaccttct gctgcacag ttgtgagatg 180
 caacccacc accccatcag gcctcacaat cagagctggg tcctatgctg atgagctcgt 240

<210> 2058
 <211> 254
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (163), (185), (214), (218), (222), (231), (238)
 <223> unsure at all n locations

<400> 2058

acaactacaa aggttgctgt aggagataag atattgaagt agtgctaagt gcctaacacc 60
 tgcagtgaac aatggcctct gcatcagcat ctcttctcaa gtcttcactt gttcttgaca 120
 agtctgagtg ggtgaaggga caaacacttc gccaaccttc tgnccgcatca gttgtgagat 180
 gcaancccaa caaccatttc aggctcaaa atcngagntg gntccctatgc ngatgagntc 240
 ggcaagaccg cgaa 254

<210> 2059
 <211> 260
 <212> nucleic acid
 <213> Glycine max

<400> 2059

acaactacaa aggttgctgt aggagataag atattgaagt agtgctaagt gcctaacacc 60
 tgcagtgaac aatggcctct gcatcagcat ctcttctcaa gtcttcactt gttcttgaca 120
 agtctgagtg ggtgaaggga caaacacttc gccaaccttc tgcctgcatca gttgtgagat 180
 gcaacccac caccatca ggctcacca tcagagctgg ttccctatgct gatgagctcg 240
 ttaagaccgc gaaaacagtg 260

<210> 2060
 <211> 224
 <212> nucleic acid
 <213> Glycine max

<400> 2060

tacaaaggtt gctgtaggag ataagattgc agtagtgcta agtgctaaca cctgcagtga 60
 acaatggcct ctgcatcagc atctctgctc aagtcttcac ttgttcttga caagtctgag 120

tgggtgaagg gacaaaccct tcgccaacct tctgcatcag ttgtgagatg caaccccacc 180
 accccatcag gcttcacccat cagagctggg tgctatgctg atga 224

<210> 2061
 <211> 239
 <212> nucleic acid
 <213> Glycine max

<400> 2061

tacaaagggt gctgtaggag ataagatatt gaagtagtgc taagtgccta acacctgcag 60
 tgaacaatgg cctctgcac agcatctctt ctcaagtctt cacttgttct tgacaagtct 120
 gagtgggtga agggacaaac acttcgcca ccttctgctg catcagttgt gagatgcaac 180
 cccaccaccc catcaggcct caccatcaga gctgggttct atgctgatga gctcgtaa 239

<210> 2062
 <211> 220
 <212> nucleic acid
 <213> Glycine max

<400> 2062

caaagggtgc tgtaggagat aagattgcag tagtgctaag tgctaacacc tgcagtgaac 60
 aatggcctct gcatcagcat ctctgctcaa gtcttcactt gttcttgaca agtctgagtg 120
 ggtgaaggga caaaccttc gccaaccttc tgcacagtt gtgagatgca accccaccac 180
 cccatcaggc ctcacccatca gagctgggtc ctatgctgat 220

<210> 2063
 <211> 227
 <212> nucleic acid
 <213> Glycine max

<400> 2063

atacaaagggt tgctgtagga gataagattg cagtagtgct aagtgctaac acctgcagtg 60
 aacaatggcc tctgcatcag catctctgct caagtcttca cttgttcttg acaagtctga 120
 gtgggtgaag ggacaaaccc ttcgccaacc ttctgcatca gttgtgagat gcaacccac 180
 cccccatca ggccaccca tcagagctgg tccctatgct gatgagc 227

<210> 2064

<211> 252
 <212> nucleic acid
 <213> Glycine max

<400> 2064

caactacaaa ggttgctgta ggagataaga tattgaagta gtgctaagtg cctaacacct 60
 gcagtgcaca atggcctctg catcagcatc tcttctcaag tcttcacttg ttcttgacaa 120
 gtctgagtgg gtaagggaca aacacttcgc caaccttctg ctgcatcagt tgtgagatgc 180
 aacccaccca ccccatcagg cctcaccatc agagctgggt cctatgctga tgagctcgta 240
 gaccgcgaaa ac 252

<210> 2065
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (37), (202), (226), (246) ... (247), (258)
 <223> unsure at all n locations

<400> 2065

caaaggttgc tgtaggagat aagattgcag tagtgencag tgctaacacc tgcagtgaac 60
 aatggcctct gcatcagcat ctctgctcaa gtcttcactt gttcttgaca agtctgagtg 120
 ggtgaagggga caaaccttc gccaaccttc tgcattcagtt gtgagatgca accccaccca 180
 ccccatcagg gcctcaccat cngagctggg tctatgctga tgagcncgtt aaagaccgcg 240
 gaaacnntgg gtttcacnag ggggg 265

<210> 2066
 <211> 194
 <212> nucleic acid
 <213> Glycine max

<400> 2066

caaaggttgc tgtaggagat aagaatgcag tagtgctaag tcctaacacc tgcagtgaac 60
 aatggcctct gcatcagcat ctctgctcaa gtcttcactt gttcttgaca agtctgagtg 120
 ggtgaagggga caaaccttc gccaaccttc tgcattcagtt gtgagatgca accccaccac 180
 cccatcagge ctca 194

1. The first step is to identify the problem or question that needs to be addressed. This involves understanding the context and the specific requirements of the task.

ctcatacaaa	ggttgctgta	ggagataaga	ttgcagtagt	gctaagtgct	aacaggtgca	60
gtgaacaatg	gcctctgcat	cagcatctct	gctcaagtct	tcacttgttc	ttgacaagtc	120
tgagtgggtg	aagggacaaa	cccttcgcca	accttctgca	tcagttgtga	gatgcaaccc	180
caccacccca	t					191

<400> 2068

catacaaagg	ttgctgtagg	agataagatt	gcagtagtgc	taagtgctaa	cacctgcagt	60
gaacaatggc	ctctgcatca	gcctctctgc	tcaagtcttc	acttgttctt	gacaagtctg	120
agtgggtgaa	gggacaaacc	cttcgccaac	cttctgcctc	agttgtgaga	tgcaacccca	180
ccaccccat						189

<400> 2069

ctacaaaggt	tgctgtagga	gataagatat	tgaagtagtg	ctaagtgcct	aacacctgca	60
gtgaacaatg	gcctctgcat	cagcatctct	tctcaagtct	tcacttggtc	ttgacaagtc	120
tgagtgggtg	agggacaaac	acttcgccaa	ccttctgctg	catcagttgt	gagatgcaac	180
cccaccaccc	catcagccct	cacaatcaga	qctqgttcc	atqctgatga	gctcgt	236

724

<400> 2070

caactacaaa gggttgctgta ggagataaga tattgaagta gtgctaagtg cctaacacct 60

gcagtgaaca atggcctctg catcagcatc tcttctcaag tcttcacttg ttcttgacaa 120

gtctgagtgg gtgaagggca aacacttcgc caaccttctg ctgcatcagt tgtgagatgc 180

aacccaccca ccccatcagg cctcaccatc agagctgggt cctatgctga tgagctcggt 240

aaga 244

<210> 2071

<211> 130

<212> nucleic acid

<213> Glycine max

<400> 2071

gtgctaagtg ctaacacctg cagtgaacaa tggcctctgc atcagcatct ctgctcaagt 60

cttcacttgt tcttgacaag tctgagtggg tgaagggaca aaccttcgc caaccttctg 120

catcagttgt 130

<210> 2072

<211> 260

<212> nucleic acid

<213> Glycine max

<400> 2072

tacaactaca aagggttgctg taggagataa gatattgaag tagtgctaag tgcctaacac 60

ctgcagtga caatggcctc tgcacagca tctcttctca agtcttcact tgttcttgac 120

aagtctgagt ggggtgaaggg acaaactt cgccaacctt ctgctgcac agttgtgaga 180

tgcaaccca cccccatc aggcctcacc atcagagctg gttcctatgc tgatgagctc 240

gttaagaccg cgaaaacagt 260

<210> 2073

<211> 269

<212> nucleic acid

<213> Glycine max

<400> 2073

tggattctg ctgaggtga acaatggcct ctgcatcagc atctcttctc aagtcttcac 60

ttgttcttga ctagtttgag tgcgtgaagg gacaaacact tcgccaacct tctgctgcat 120
cagttgtgag atgcaacccc accactcctt caggcctcac catcagagct gtttcctatg 180
ctgatgagct ctttaagacc gcgaaaacag tggcttcacc tcggaggggt attttggcca 240
tgtctgagtc cactgctccc tgttcgaag 269

<210> 2074
<211> 197
<212> nucleic acid
<213> Glycine max

<400> 2074

aaaggttgct gtaggagata agatattgaa gtagtgctaa gtgcctaaca cctgcagtga 60
acaatggcct ctgcatcagc atctcttctc aagtcttcac ttgttcttga caagtctgag 120
tgggtgaagg gacaaacact tcgccaacct tctgctgcat cagttgtgag atgcaacccc 180
accaccccat caggcct 197

<210> 2075
<211> 165
<212> nucleic acid
<213> Glycine max

<400> 2075

caaaggttgc tgtaggagat aagattgcag tagtgctaag tgctaacacc tgcagtgaac 60
aatggcctct gcatcagcat ctctgctcaa gtcttcactt gttcttgaca agtctgagtg 120
gggtgaaggga caaaccttc gccaaccttc tgcacagtt gtgag 165

<210> 2076
<211> 192
<212> nucleic acid
<213> Glycine max

<400> 2076

ctacaaagggt tgctgtagga gataagatat tgaagtagtg ctaagtgcct aacacctgca 60
gtgaacaatg gcctctgcat cagcatctct tctcaagtct tcacttgttc ttgacaagtc 120
tgagtgggtg aagggaacaa cacttcgcca accttctgct gcatcagttg tgagatgcaa 180
ccccaccacc cc 192

<210> 2077
 <211> 189
 <212> nucleic acid
 <213> Glycine max

 <220>
 <221> unsure
 <222> (26), (73), (179)
 <223> unsure at all n locations

 <400> 2077

 caactacaaa gggttgctgta ggaganaaga tattgaagta gtgctaagtg cctaacacct 60
 gcagtgaaca atngcctctg catcagcatc tcttctcaag tcttcacttg ttcttgacaa 120
 gtctgagtgg gtgaagggac aaacacttcg ccaaccttct gctgcatcag ttgtgagang 180
 caacccccac 189

 <210> 2078
 <211> 197
 <212> nucleic acid
 <213> Glycine max

 <400> 2078

 gggttgctgta ggagataaga tattgaagta gtgctaagtg cctaacacct gcagtgaaca 60
 atggcctctg catcagcatc tcttctcaag tcttcacttg ttcttgacaa gtctgagtgg 120
 gtgaagggac aaacacttcg ccaaccttct gctgcatcag ttgtgagatg caacccccacc 180
 accccatcag gcctcac 197

 <210> 2079
 <211> 199
 <212> nucleic acid
 <213> Glycine max

 <400> 2079

 caactacaaa gggttgctgta ggagataaga tattgaagta gtgctaagtg cctaacacct 60
 gcagtgaaca atggcctctg catcagcatc tcttctcaag tcttcacttg ttcttgacaa 120
 gtctgagtgg gtgaagggac aaacacttcg ccaaccttct gctgcatcag ttgtgagatg 180
 caacccccacc accccatca 199

<210> 2080
 <211> 170
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (41)
 <223>

<400> 2080

caactacaaa ggttgctgta ggagataaga tattgaagta ntgctaagt cctaacacct 60
 gcagtgaaca atggcctctg catcagcatc tcttctcaag tcttcacttg ttcttgacaa 120
 gtctgagtgg gtgaagggaac aaacacttcg ccaaccttct gctgcatcag 170

<210> 2081
 <211> 273
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (228)
 <223>

<400> 2081

caactacaaa ggttgctgta ggagataaga tattgaagta gtgctaagt cctaacacct 60
 gcagtgaaca atggcctctg catcagcatc tcttctcaag tcttcacttg ttcttgacaa 120
 gtctgagtgg gtgaaggga aacacttcgc caaccttctg ctgcatcagt tgtgagatgc 180
 aacccaccca ccccatcagg cctcacaatc agagctgcct cctatgcnga tgagctcgtt 240
 aagaccgga aaacagtggc ttcaccaggg agg 273

<210> 2082
 <211> 272
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (53)
 <223>

<400> 2082

669370-037-0000

tacaactaca aaggttgctg taggagataa gatattgaag tagtgctaag tgnctaacac 60
 ctgcagtga caatggcctc tgcacagca tctcttctca agtcttcact tgttcttgac 120
 aagtctgagt ggggtgaagga caaacacttc gccaaccttc tgcctcatca gttgtgagat 180
 gcaacccac caccocatca ggccacacca tcagagctgg ttctatgct gatgagctcg 240
 ttaagaccgc gaaaacagtg gcttcaccag gg 272

<210> 2083
 <211> 268
 <212> nucleic acid
 <213> Glycine max

<400> 2083
 caactacaaa ggttgctgta ggagataaga tattgaagta gtgctaagt cctaacacct 60
 gcagtgaaca atggcctctg catcagcatc tcttctcaag tcttcacttg ttcttgacaa 120
 gtctgagtgg gtgaagggaac aaacacttcg ccaaccttct gctgcatcag ttgtgagatg 180
 caacccacc acccatcag gccacagcat cagagctggg ttctatgctg atgagctcgt 240
 taagaccgcg aaaacagtgg cttcacca 268

<210> 2084
 <211> 153
 <212> nucleic acid
 <213> Glycine max

<400> 2084
 acaaaggttg ctgtaggaga taagattgca gtagtgctaa gtgctaacac ctgcagtga 60
 caatggcctc tgcacagca tctctgctca agtcttcact tgttcttgac aagtctgagt 120
 ggggtgaaggg acaaaccctt cgccaacctt ctg 153

<210> 2085
 <211> 222
 <212> nucleic acid
 <213> Glycine max

<400> 2085
 ctcgagccga atcggtcga gggggtcga gcaacgtaca aaggttacgc ttaggagat 60
 aagatattgt agtagtgcta agtgcttagc acttgagtg aacaatggcc tctgcatcag 120

catctcttct caagtcttca cttgttcttg acaagtctga gtgggtgaag ggacaaacac 180
 ttcgccaacc ttctgctgca tcagttgtga gatgcaaccc ca 222

<210> 2086
 <211> 188
 <212> nucleic acid
 <213> Glycine max

<400> 2086

atacaactac aaaggttgct gtaggagata agatattgaa gtagtactaa gtgcctaaca 60
 cctgcagtga acaatggcct ctgcatcagc atctcttctc aagtcttcac ttgttcttga 120
 caagtctgag tgggtgaagg gacaaacact tctccaacct tctgctgcat cagttgtgag 180
 atgcaacc 188

<210> 2087
 <211> 227
 <212> nucleic acid
 <213> Glycine max

<400> 2087

ctcgagccgc aaaggttgct gtaggagata agattgcagt agtgctaagt gctaacacct 60
 gcagtgaaca atggcctccg gctcagcatc tctgctcaag tcttcacttg ttcttgacaa 120
 gtctgagtgg gtgaagggac aaacccttcg ccaacccttct gcatcagctg tgagatgcaa 180
 cccaccacc ccatcaggcg tcaccatcag agctggttcc tatgctg 227

<210> 2088
 <211> 106
 <212> nucleic acid
 <213> Glycine max

<400> 2088

tgaacaagtt ggaggtgttg aagccatgga ctctctcatt ctcatcggg cgagcactgc 60
 aacaaagcac actcaagaca tgggggtggaa agaaggagaa tgctgc 106

<210> 2089
 <211> 278
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (82), (257)
 <223> unsure at all n locations

<400> 2089

gacgacgcgt caatatggca tggccagata cgctgtcata tgccagaaaa agggctgggt 60
 ccattgttga gcctgagatc cntgttgatg gatctcatga cattcacaag tgtgctgccg 120
 tcaccgaacg tgtccctgca gcatgctaca aagctttgaa tgatcaccac gtccttcttg 180
 aggggtacct attgaagcca aacatgggtca ccccgggat caaatctgct aagggttccc 240
 ctcaggttgg tgcggancac aacggttaaa gcccttca 278

<210> 2090
 <211> 338
 <212> nucleic acid
 <213> Glycine max

<400> 2090

agtacggctg cgagaagacg acagaagggg gttcactttc ttccaacctc taacctacct 60
 ctttttcttc tctctcaaca acttcaactt cttcctcttc gattaagtgc caatttaaag 120
 gcaaattaca agattaacct aaccgcaaaa ccgccttcaa ttggaatccc tgaaaagggt 180
 attcttcttg ccgataattc aacagggaca attggcaacc ttttgccag catcattgta 240
 aaaacaattg aatccaacag gcaagctctt agggagctgc ttttcattgc tcctgatgtt 300
 cttcaatatc tcattggtgt catcctcttt aaggaaac 338

<210> 2091
 <211> 369
 <212> nucleic acid
 <213> Glycine max

<400> 2091

gatgagctta ttgcgaatgc tgcttacatt ggcactcctg gaaagggtat tcttgcctgt 60
 gatgagtcaa cagggaacaat tggcaagcgt ttggccagca tcagtgtaga gaatgttgaa 120
 tccaacaggc gtgctcttag ggagctgctt ttcaccgctc ccggtgctct taaatatctc 180
 agtgggtgtca tcctctttga ggaaactctc taccagagca cagctgcagg caagcccttt 240

gtggaagtct tgaaggaggc tgggtgtgctt cctggcatca aggttgacaa gggcacagtt 300
gagcttgctg gcactaatgg agaaaccacc actcaggggc tagatggcct tggtcagcgt 360
tgcgccaag 369

<210> 2092
<211> 432
<212> nucleic acid
<213> Glycine max

<400> 2092

agacggctgc gagaagacga cagaagggggg ttcactttct tccaacctct aacctacctc 60
tttttcttct ctctcaacaa cttcaccttc ttctctctcg atcatgtctc acttcaaggg 120
caagtaccat gatgagctta tcgccaatgc tgcgtacatt ggcactcctg gaaaggggat 180
tcttgctgct gatgagtcaa cagggacaat tggcaagcgt ttggccagca tcagtgtaga 240
gaacattgaa tccaacaggc gagctcttag ggagctgctt ttcactgctc ctggtgttct 300
tcaatatctc agtgggtgtca tcctctttga ggaaaccctc taccagagca cagctgcagg 360
caagcccttt gtgaatgtct tgaacgaagc tgggtgtgctt cctggcatca aggttgacaa 420
gggcacagtc ga 432

<210> 2093
<211> 379
<212> nucleic acid
<213> Glycine max

<400> 2093

ctacctcttt ctcttctatc tcaacaacta cactttcttg ctactggatc atgtctcgag 60
ttcaagggca agtaccatga tgagcttctc gccaatgctg cgtacattgg cactcctgga 120
aagggtatct ttgctgctga tgagtcaaca gggacaattg gcaagcgctt ggccagcatc 180
agtgtagaga acattgaatc caacaggcga gctcttaggg agctgctttt cactgctcct 240
gggtgttcttc aatatctcag tgggtgtcatc ctctttgagg aaaccctcta ccagagcaca 300
gctgcaggca agccctttgt gaatgtcttg aaagaagctg gtgtgcttcc tggcatcaag 360
ggtgacaagg gcacagtcg 379

<210> 2094

<211> 411
<212> nucleic acid
<213> Glycine max

<400> 2094

acctacctct ttttcttctc totcaacaac ttcaccttgg tctctctcga tcatgtctca 60
cttcaagggc aagtaccatg atgagcttat cgccaatgct gcgtacattg gcaactcctgg 120
aaaggggtatt cttgctgctg atgagtcaac agggacaatt ggcaagcgtt tggccagcat 180
cagtgtagag aacattgaat ccaacaggcg agctcttagg gagctgcttt tcaactgctcc 240
tggtgttctt caatatctca gtggtgtcat cctctttgaa gaaacctct accagagcac 300
agctgcaggc aagccctttg tgaatgtctt gaaagaagct ggtgtgcttc ctggcatcaa 360
ggttgacaag ggcacagtgc agcttgctgg aactaatgga gaaaccacca c 411

<210> 2095
<211> 446
<212> nucleic acid
<213> Glycine max

<400> 2095

aaaaacccta cttggtcttt ttcttcactt gttcactttc ttccaacctc taacctacct 60
ctttttcttc totctcaaca acttcacctt cttcctctc gatcatgtct cacttcaagg 120
gcaagtacca tgatgagctt atcgccaatg ctgcgtacat tggcactcct ggaaagggta 180
ttcttgctgc tgatgagtca acagggacaa ttggcaagcg tttggccagc atcagtgtag 240
agaacattga atccaacaag ccaactctta aggagctgct tttcactgct cctgggtgttc 300
ttcaatatct cagtgggtgc atcctctttg aggaaccct ctaccagagc acagctgcag 360
gcaagccctt tgtgaatgtc ttgaaggaag ctgggtgtgct tcttggcatc aagggtgaca 420
agggcacagt cgagcttgct ggaact 446

<210> 2096
<211> 418
<212> nucleic acid
<213> Glycine max

<400> 2096

ctetaaccta cctctttttc ttctctctca acaacttcac cttcttctc ctcgatcatg 60
agggcaagta ccatgatgag cttatcgcca atgctgcgta cattggcact 120

<210> 2099
 <211> 356
 <212> nucleic acid
 <213> Glycine max

 <400> 2099

 ctacctcttt ttctttctctc tcaacaactt cacccttcttc ctctctcgatc atgtctcact 60
 tcaagggcaa gtaccatgat gagcttatcg ccaatgctgc gtacattggc actcctggaa 120
 aggggtattct tgctgctgat gagtcaacag ggacaattgg caagcgtttg gccagcatca 180
 gtgtagagaa cattgaatcc aacaggcgag ctcttaggga gctgcttttc actgctcctg 240
 gtgtttcttca atatctcagt ggtgtcatcc tctttgagga aaccctctac cagagcacag 300
 ctgcaggcaa gccctttgtg aatgtcttga aggaagctgg tgtgcttcct ggcatac 356

<210> 2100
 <211> 369
 <212> nucleic acid
 <213> Glycine max

 <400> 2100

 ctcgagccga atcggtctga gaacctacct gtttttcttc tctctcaaca acttcacctt 60
 cttctctctc gatcatgtct cacttcaagg gcaagtacca tgatgagctt atcgccaatg 120
 ctgcgtacat tggcactcct ggaaagggtg ttcttgctgc tgatgagtca acagggacaa 180
 ttggcaagcg tttggccagc atcagtgtag agaacattga atccaacagg cgagctctta 240
 aggagctgct tttcactgct cctggtgttc ttcaatatct cagtgggtgc atcctctttg 300
 aggaaacctt ctaccagagc acagctgcag gcaagccctt tgtgaatgtc ttgaaggaag 360
 ctggtgtgc 369

<210> 2101
 <211> 390
 <212> nucleic acid
 <213> Glycine max

 <400> 2101

 acggctgcga gaagacgaca gaaggggact tgttcacttt cttccaacct ctcaagtcca 60
 acctaccctt ttttctctctc ccaccaactt caccgtcttc ttctctcgatc atgtctcact 120

tcaagggcaa gtaccatgat gagcttattg ccaatgctgc ttacattggc actcctggaa 180
 aggggtattct tgctgctgat gagtcaacag ggacaattgg caagcgtttg gccagcatca 240
 gtgtagagaa tgttgaatcc aacaggcgtg ctcttaggga gctgcttttc accgctcccg 300
 gtgctcttaa atatctcagt ggtgtcatcc tctttgagga aactctctac cagagcacag 360
 ctgcaggcaa gccctttgtg gaagtcttga 390

<210> 2102
 <211> 427
 <212> nucleic acid
 <213> Glycine max

 <220>
 <221> unsure
 <222> (191), (337)
 <223> unsure at all n locations

 <400> 2102

cacgcgtcca gctattcctc cctcctcaca aacttcaett tcttcttctt cattaatgtc 60
 tcacttcaag ggcaagtacc atgatgagct tatcgcaa at gctgcgtaca ttggcactcc 120
 tggaaaggggt attcttgctg ctgatgagtc aacagggaca attggcaagc gtttggccag 180
 catcagtgtg nagaacattg aatccaacat gcgagctctt agggagctgc ttttactgc 240
 tcttggtgtt cttcaatata tcagtgggtg catcctcttt gaggaaaccc tctaccagag 300
 cacagctgca tgcaagccct ttgtgaatgt cttgaangaa gctgggtgtg ttcctggcat 360
 caatgttgac aagggcacag tcgagcttgc tggaactaat ggagaaaaca ccactcatgg 420
 tctagat 427

<210> 2103
 <211> 392
 <212> nucleic acid
 <213> Glycine max

 <400> 2103

caacctctaa cctacctctt tttcttctct ctcaacaact tcaccttctt cctcctcgat 60
 catgtctcac ttcaagggca agtaccatga tgagcttata gccaatgctg cgtacattgg 120
 cactcctgga aagggtattc ttgctgctga tgagtcaaca gggacaattg gcaagcgttt 180

<211> 276
 <212> nucleic acid
 <213> Glycine max

<400> 2106

ctcaagtcca acctaccct ttttcttctc ccacgcaact tgaccgtctt cttcctcgat 60
 catgtctcac ttcaagggca agtaccatga tgagcttatt gccaatgctg cttacattgg 120
 cactcctgga aaggggtattc ttgctgctga tgagtcaaca gggacaattg gcaagcggtt 180
 ggccagcatc agtgtagaga atgttgaatc caacaggcgt gctcttatgg agctgctttt 240
 caccgctccc ggtgctctta aatatctcag tggtgt 276

<210> 2107
 <211> 401
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (241)
 <223>

<400> 2107

aagtgtgtct gagcctgacg tcgtagctat tgcactcactc tataagagct atgacgcacg 60
 ctgacctaaag cccgggattc ggggttcggga tgggccccaa cgagccttct gagctgtcta 120
 tccatgagaa cgcctatggc ttggctagat acgctgtcat atgccatgag aatggcctgg 180
 ttcccattgt tgagcctgag atccttggtg atggacctca tgacattcac aagtgtgccg 240
 ncgtcaccga gcggtgctctt gcagcatgct acaaggcttt gaatgatcac catgtccttc 300
 ttgaggggtac cctattgaag ccaaacatgg tcacccttgg atcccaatct gctaagggtt 360
 tccctcatgt ggttgccgag cacactgtca gagcccttca g 401

<210> 2108
 <211> 309
 <212> nucleic acid
 <213> Glycine max

<400> 2108

gacccacgcy tccgcgcact cgtccgtacg gctgcgagaa gacgacagaa gggtagcgct 60
 gcgagaagag gacagaatgg tacggctgcy agaagacgac agaaggatac ggctgcgaga 120

agacgacaga aggggtacggc tgcgagaaga cgacagaagg ggaccgagcg cgttcttgca 180
 gcatgctaca aggtctctaaa tgatcacat gttctgcttg agggcactct gttgaagccc 240
 aacatggtca cccctgggtc aaagtctaag aaggtcaccc cagatgtgat tgctcaatac 300
 actgttaca 309

<210> 2109
 <211> 215
 <212> nucleic acid
 <213> Glycine max

<400> 2109

catggcgagg aaaagaagag attgtgaaga aggtcagga agcccttttg gtaagagcca 60
 aggctaactc agaggcaact ctgggaacct acaagggtaa ctcacagctt gctgatggtg 120
 cctcagagag cctccatgtt tcgaactaca gctactgatc aatcgaagtt ggtgttgttt 180
 gaagagacta gtgcgagtag gaatcgggtat tatgg 215

<210> 2110
 <211> 428
 <212> nucleic acid
 <213> Glycine max

<400> 2110

aaccgttggtc ttctcacttc gtcaaaacca accaaacccc tccccaatc tcaagccaac 60
 cagggctcttc cttcaagagc aagtaccaag atgaactcat tgccaatgct gcttacattg 120
 gcaccccagg gaagggtatc cttgctgctg atgagtcaac tgggtacaatt ggcaagcgat 180
 tggccagcat taatgtcgag aatggtgaag caaataggcg tgctcttcgt gaactcctat 240
 tcaccacacc tgggtgctttt gagtgcctca gtgggtgtgat cttgtttgaa gaaaccctat 300
 accaaaagac agcttcagga aaacccttcg tagagttgat gaaggaaaga ggagttctcc 360
 ctggtatcaa ggttgacaag ggcacagtag agcttcgagg aactaatggg gagactacta 420
 cttaaagg 428

<210> 2111
 <211> 373
 <212> nucleic acid
 <213> Glycine max

<400> 2111
 tacggctgog agaagacgac agaaggggac actccctttt taaaaccggt gtctttctcac 60
 ttogtcaaaa ccaacgaggg gcgtcccca gtctcaagcc aaccatgtct tccttcaaga 120
 gcaagtacca ggatgaactc attgccaatg ctgcttacat tggcacccca gggaagggtta 180
 tccttgogggc tgatgagtca actggtacaa gtcgcaagcg attggccagc attaattgtcg 240
 agaatgttga agcaactagg cgtgctcttc gtgaactcgg attcagcaca cctggtgctt 300
 ttgagtgcct cagtgggtgtg atcttgtctg acgaaaccct atgccaggag acagcttcag 360
 gaaaaccctt cgt 373

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 <212> nucleic acid
 <213> Glycine max

<400> 2112
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 tgggtgaagg gacaaaccct tcgccaacct tctgcatcag ttgtgagatg caaccccacc 180
 agcccatcag gcctcaccat cagagctggg tcctatgctg atgagctcgt taagaccgcg 240
 aaaacagtgg cttcaccagg gaggggtatt ttggccatgg atgagtccaa tgctacctgt 300
 gggaagcggt tggcttcaat tgggctagag aacactgaag ctaaacgcca ggcataccgt 360
 tacctcctcg 370

<210> 2113
 <211> 418
 <212> nucleic acid
 <213> Glycine max

<400> 2113
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 cttcgccaac cttctgcatc agttgtgaga tgcaaccca ccaccccatc aggctcagc 180
 atcagagctg gttcctatgc tgatgagctc gttaagaccg cgaaaacagt ggcttcacca 240

gggaggggta ttttggccat ggatgactcc aatgctacct gtgggaagcg tttggcttca 300
attgggctat agaacactga agctaaccgc catgcatagc gtaccctcct cgtgacagtt 360
ccaggccttg gtcagtacat ctctggtgcc attctctttg aggaaacact ctaacaat 418

<210> 2114
<211> 267
<212> nucleic acid
<213> Glycine max

<400> 2114

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gcaagtatac caagagatgg ttcataacca aagtccttaa gatataattg aagcatggta 120
gctgatgttc accgcacatt gctttatgga ggtatttttc tgtatccggc tgataaaaag 180
agtccaaatg gaaaacttcg tgtactctat gaagtcttcc caatgtcatt cttgatggaa 240
caagcaggag gacaggcttt cactggc 267

<210> 2115
<211> 271
<212> nucleic acid
<213> Glycine max

<400> 2115

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ctggggtgat tgatgcagaa ctactattg tgctgtctag catttccatg gcgtgcaatc 120
agattgcttc tttggtgcaa agagccaaca tttccaacct cactgggggtt caaggagctg 180
tcaatgttca gggggaagac cagaaaaagc ttgatgttgt ttcaaatgag gtcttctcat 240
actgcttgag gtcaagtggg aggacagga t 271

<210> 2116
<211> 261
<212> nucleic acid
<213> Glycine max

<400> 2116

gaaatgccaa aaactgggat cgtcctactg ctacttacgt tgaaaaatgc aagtttctctg 60
aagatgggtc atcaccaaag tctctaagat atattcggaa gtatgggtag ctgatgttca 120


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<220>
<221>      unsure
<222>      (86), (91), (102), (154), (171), (176), (189), (192), (208),
              (225), (228), (234), (240), (245), (247), (253), (258), (283)
<223>      unsure at all n locations

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tacattggta gcttggtagg agacttccac aggnccactg ctatatggtg ncattnatgg  180
gtaccccang gnccaagcca aagtaacnat gggcaattca agctncanta ggangggccn  240
ccatnanctt ccntattngc cccggctggg ggaaaaggtc ccntgcccc c           291

<210>      2120
<211>      258
<212>      nucleic acid
<213>      Glycine max

<220>
<221>      unsure
<222>      (154), (182), (200), (213), (216), (220), (229), (231), (233),
              (241), (243), (245), (247), (251), (255)
<223>      unsure at all n locations

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gtatggcgaa ttcgttttga ctcaggaaaa cctncaaata cctagagcag gcaaaattta  180
tnttttcaat gaagggaatn atcattgtgg ganccncacn taaggaaant ntntggacaa  240
ncnangnccc ncgcnccc                                           258

<210>      2121
<211>      157
<212>      nucleic acid
<213>      Glycine max

<400>      2121

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atggaacagg caggaggaca gtctttcacg ggcaagg

157

<210> 2122
<211> 262
<212> nucleic acid
<213> Glycine max

<400> 2122

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cggttgcaag ttctctgtct ctgctgttaa caaggcgggt cttgctaagc ttattggact 180
tgcaggagag acaaatgttc agggcgaaga gcaaaagaaa ctggatgtcc tttccaatga 240
tgtctttatc aaggctttgg tc 262

<210> 2123
<211> 241
<212> nucleic acid
<213> Glycine max

<400> 2123

ggatcacagt gccgatgtc aacgcacgga cttgatgacc atcaccgct tcgtgctgaa 60
ccaacaatcc aaccacctg agtctcgtgg cgattttctca atcttgetca gtcacattgt 120
tctcggttgc aagttctct gctctgtgt taacaaggcg ggtcttgcta agcttattgg 180
acttgcagga gagacaaatg ttcaggggaa gagcaaaaga aactggatgt cctttccaat 240
g 241

<210> 2124
<211> 261
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (61), (68), (90), (248)
<223> unsure at all n locations

<400> 2124

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naattgtntt gttccgttca ggtgattgtn tgattgagcc ttgaagaaat ggaccacagc 120

gctgatgcac atcgacgga cttgatgacc ataacgcggt tcgtgctgaa cgagcaatcc 180
aagcaccocg agtcacgcgg cgatttcacc atcttgetca gtcacattgt tctcggttgc 240
aagttcgntt gttccgctgt c 261

<210> 2125
<211> 258
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (84)
<223>

<400> 2125

ttattatact ttcttcttct tctttattat tgttgattaa tataacatac acccacatat 60
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tcaggtgatt gtttgattga gccttgaaga aatggaccac agcgtgatg cacatcgac 180
ggacttgatg accataacgc ggttcgtgct gaacgagcaa tccaagcacc ccgagtcacg 240
cggcgatttc accatctt 258

<210> 2126
<211> 257
<212> nucleic acid
<213> Glycine max

<400> 2126

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gatgttgttt caaatgaggt tttctcaaac tgcttgaggt caagtgggag gacagggata 120
atagcatcag aggaggaaga tgtgccagtg gcagtagaag agagttattc tggaaactac 180
attgtggtgt ttgaccact tgatgggtca tccaatattg atgctgcagt gtcaactggg 240
tccatttttg ggatata 257

<210> 2127
<211> 253
<212> nucleic acid
<213> Glycine max

<400> 2127

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agaagagagt tattctggaa actacattgt ggtgtttgac ccacttgatg ggtcatccaa 180
tattgatgct gcagtgtcaa ctgggtccat ttttgggata tacagcccca atgatgagt 240
tctgctgaca ttg 253

<210> 2128
<211> 228
<212> nucleic acid
<213> Glycine max

<400> 2128

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gggaggacag ggataatagc atcagaggag gaagatgtgc cagtggcagt agaagagagt 120
tattctggaa actacattgt ggtgtttgac ccacttgatg ggtcatccca tattgatgct 180
gcaatgtcaa tgggtccat ttttgggata tacagcccca tgatgagt 228

<210> 2129
<211> 284
<212> nucleic acid
<213> Glycine max

<400> 2129

atcaacaaac caaaaaggta aactttttgc aacaaccatg gttgcaatgg cagcagcaac 60
agcatccacc cagttgattt tctcaaagcc ttgttcccct tcacgtctat gccccttcca 120
actatgtgtc tttgacacta aacaagtgtc atcaagtggc aggagaaggc atgtgggggg 180
ttctggagtt aggtgcatgg ctgtggggga agcagcaacc actgggacaa agaagagaag 240
tgatgatgag cttcaaacac tcaactagctg gttgctgaag cagg 284

<210> 2130
<211> 276
<212> nucleic acid
<213> Glycine max

<400> 2130

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66320 "E3T4E6D"

<223>

<400> 2133

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aaacaagtgc tatcaagtgg caggagaagg catgtggggg gttctggagt taggtgcatg 180

gctgtggggg aagcagcaac catgggacaa agaagagaag tggatatgag cttcaaacac 240

tcactagctg gttgctgaag caggagcaag ctgg 274
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<210> 2134

<211> 252

<212> nucleic acid

<213> Glycine max

<400> 2134

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aaaaggtaaa ctttttgcaa caaccatggt tgcaatggca gcagcaacag catccaccca 60

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tgacactaaa caagtgctat caagtggcag gagaaggcat gtgggggggt ctggagttag 180

gtgcatggct gtgggggaag cagcaaccac tgggacaaag aagagaagtg gatatgagct 240

tcaaacactc ac 252
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<210> 2135

<211> 275

<212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (142), (212), (214), (256), (274)

<223> unsure at all n locations

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aagtgctatc aagtggcagg anaaggcatg tgggggggtt tggagttagg tgcattgctg 180

tgggggaagc agcaaccact gggacaaaga ananaagtgg atatgagctt caaacactca 240

ctagtgggtg ctgaanagga gcaagctggg gtgnt 275
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 <213> Glycine max

 <400> 2136

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 ctttgacact aaacaagtgc tatcaagtgg caggagaagg catgtggggg gttctggagt 180
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 gcttcaaaca ctc 253

<210> 2137
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 <212> nucleic acid
 <213> Glycine max

 <400> 2137

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 tgacactaaa caagtgctat caagtggcag gagaaggcat gtgggggggtt ctggagttag 180
 gtgcatggct gtgggggaag cagcaaccac tgggacaaaa agagaagtgg atatgagctt 240
 caaacactca ctag 254

<210> 2138
 <211> 262
 <212> nucleic acid
 <213> Glycine max

 <400> 2138

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 gctgtggggg aagcagcaac cactgggaca aagaagagaa gtggatatga acttcaaaca 180
 ctactagct gggtgctaga acaggagcaa gctgggggtga ttgatgcaga actcatattg 240
 tgctgtctag catttccatg gc 262

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 <211> 285
 <212> nucleic acid
 <213> Glycine max

 <400> 2139

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 ttgacaccaa acaagtgtctg tcaagttcaa gtggcaggag aaggcatgtg ggggggttctg 180
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 <211> 251
 <212> nucleic acid
 <213> Glycine max

 <400> 2140

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 ggcaggagaa ggcattgtggg gggttctgga gttagggtgca tggctgtggg ggaagcagca 180
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 <211> 275
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 <400> 2141

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 tttgacacca aacaagtgtc gtcaagttca agtggcagga gaaggcatgt ggggggttct 180
 ggagttagggt gcatggcggt gggagaagct gcaaccactg agactaagaa gagaagtgga 240
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<212>	nucleic acid
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ttgacaccaa	acaagtgctg	tcagttcaag	tggcaggaga	aggcctgtgg	ggggntctgg	180
agttnggtgc	atggcgggtg	gagaagctgc	aaccatgaga	ctangnagag	aagtggatat	240
gagcttcaaa	catcataact	ggttgctgaa	gcaggagc			278

<210>	2148
<211>	246
<212>	nucleic acid
<213>	Glycine max

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aacaagtgct gtcaagttca agtggcagga gaaggcatgt ggggggttct ggagttaggt		180
gcatggcggg gggagaagct gcaagcactg agactaagaa gaaagtggat atgagcttca		240
aacact		246

<210>	2149
<211>	250
<212>	nucleic acid
<213>	Glycine max

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aacaagtgct	gtcaagttca	agtggcagga	gaaggcatgt	gggggggttct	ggagttaggt	180	
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aaacactcac						250	

<210>	2150
<211>	269
<212>	nucleic acid
<213>	Glycine max

1. The first part of the document is a list of references. The references are listed in two columns. The first column contains references 1 through 10, and the second column contains references 11 through 20. The references are as follows:

1. The first part of the document is a list of references.	11. The first part of the document is a list of references.
2. The first part of the document is a list of references.	12. The first part of the document is a list of references.
3. The first part of the document is a list of references.	13. The first part of the document is a list of references.
4. The first part of the document is a list of references.	14. The first part of the document is a list of references.
5. The first part of the document is a list of references.	15. The first part of the document is a list of references.
6. The first part of the document is a list of references.	16. The first part of the document is a list of references.
7. The first part of the document is a list of references.	17. The first part of the document is a list of references.
8. The first part of the document is a list of references.	18. The first part of the document is a list of references.
9. The first part of the document is a list of references.	19. The first part of the document is a list of references.
10. The first part of the document is a list of references.	20. The first part of the document is a list of references.

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 <222> (17), (33), (53), (65), (89), (118), (126), (261)
 <223> unsure at all n locations

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 <211> 222
 <212> nucleic acid
 <213> Glycine max

 <400> 2151

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 ccaactatgt gtctttgaca ctaaacaagc gctatcaagt ggcaggagaa ggcattgtggg 180
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<210> 2152
 <211> 192
 <212> nucleic acid
 <213> Glycine max

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 ctaaacaagt gctatcaagt ggcaggagaa ggcattgtggg gggttctgga gttaggtgca 180
 tggctgtggg gg 192

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 <212> nucleic acid
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 atcttgacac caaacaagtg ctgtcaagtt caagtggcag gagaaggcat gtgggggggtt 180
 ctggagttag gtgcatggcg gtggggagaag ctgcaaccac tgagactaag aagagaagtg 240
 gatatga 247

<210> 2154
 <211> 255
 <212> nucleic acid
 <213> Glycine max
 <220>
 <221> unsure
 <222> (16), (50), (172), (174), (178), (191), (212), (232)
 <223> unsure at all n locations

<400> 2154
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 aggtaaactt tttgcaacaa ccatggttgc aatggcagca gcaacagcat ccacccagtt 120
 gattttctca aagccttggt ccccttcacg tctatgcccc ttccaactat gngnctgnac 180
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 ggctgtgggg gaagc 255

<210> 2155
 <211> 225
 <212> nucleic acid
 <213> Glycine max

<400> 2155
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 ttctcaaagc ctctgttcacc ctctggtctc tggcccttcc aactatgtgt ctttgacacc 180
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<210> 2156

<211> 218
 <212> nucleic acid
 <213> Glycine max

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 cttccaacta tgtgtctttg acactaaaca agtgctat 218

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 <211> 135
 <212> nucleic acid
 <213> Glycine max

<400> 2157

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 tttgacacta aacaa 135

<210> 2158
 <211> 92
 <212> nucleic acid
 <213> Glycine max

<400> 2158

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 tttctcaaag cctcggttcac cctcggtct ct 92

<210> 2159
 <211> 236
 <212> nucleic acid
 <213> Glycine max

<400> 2159

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 cattgattgt ggggtttcca ttggcacaat ttttggggtt tatgcgttga aagatgtcca 120
 tgaaccaacc atagaagatg tctgtcttc tgggaagaac atggtggcag ctggttactg 180

tatgtatgga agctcttgca cgcttggtt aagcactgga gcaggtgtta atgggt 236

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 <211> 280
 <212> nucleic acid
 <213> Glycine max

<400> 2160

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 atagcaccat ctctttctcc ttctccctaa acctcgaaact cagcaccccc atccactggt 120
 gattgtttga ttgagccttg aagaaatgga ccacagcgct gatgcacatc gcacggactt 180
 gatgaccata acgcggttcg tgctgaacga gcaatccaag caccocgagt cacgcggcga 240
 tttcaccatc ttgctcagtc acattgttct cggttgcaag 280

<210> 2161
 <211> 363
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (236), (284), (304), (307), (311), (341) ... (342)
 <223> unsure at all n locations

<400> 2161

caaaactttc atatccccga aattctctct ttttccactg ttccctagga aatattttatt 60
 ctcattctca tctctacac aacacctaag atcggacaag agggaaactca taattttataa 120
 aaagaacatt gagaaagaga gaagggaaga agaattggacc accaagctga cactaacaga 180
 actgatttga tgacatcaca cgctttgttc tgaatgaaca gtcaaagtat cccgantcac 240
 gtggcgattt caccatcctt ctcatgcaca tgggttctggg ctgnaatccg tttgttctgc 300
 tgtnaanagg nggggtggcg aaaccaagg attgcggaga nncattttca ggggggacaa 360
 aaa 363

<210> 2162
 <211> 393
 <212> nucleic acid
 <213> Glycine max

<400> 2162

cttgagcatt atgttgtccc aactcccgca actgctgcaa attcagcaca tgtatatgcc 60
gctaacatga cagagaatcc aaggctcacta atttgtgggt ctggcagcag ttcatatccc 120
atcaaggaga tgcaggttat tgtgcctgat ccatctaaga tttttcaaag ttctggaatg 180
gttgaatcca agtcagttgg aacattttca cctctgcaaa agcaagagag tcagagggga 240
ctttttgttg atagaggtgt 260

<210> 2166
<211> 390
<212> nucleic acid
<213> Glycine max

<400> 2166

cccacgcgtc cgtacggctg cgagaagacg acagaagggg ggatgacgta tgaagaaatc 60
aagaagaaca tgccagagga gtatgaatcc cgcaataagg acaaacttag gtatcgttat 120
cctcgtggag agtcttactt agatgttatt caaagggttag aacctgtaat tattgaaactt 180
gagcgacaac gagcacctgt tgttgtgata tctcaccagg cagttttgag ggcattatat 240
gcttattttta ctgacaggcc tttgaaagaa attgcagata ttgagatgcc cctccatacg 300
ataatagaaa tacaattggg agttacaggt gtcgaagaga aaagatacaa actaatggac 360
tgaaatgaat aactgaagga gagaagaaac 390

<210> 2167
<211> 122
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (62)...(64),(84),(90)
<223> unsure at all n locations

<400> 2167

ggtgagtaac catgatgagc taatgtccaa ctattttgca cagtctgatg cccttgcata 60
tnnnaagaca gcagagcagc tgcnaaaggn caatgtttcc ccgcacctta ttccacacaa 120
ga 122

<210> 2168

<211> 234
 <212> nucleic acid
 <213> Glycine max

<400> 2168

tgataatcct ccactcaaga taacatacat ggacaacacg gatcctgctg gaattgatca 60
 tcagattgca caacttgggc ctgagctagc ttcaacactt gtgattgtga tatcaaagag 120
 tggaggtact cctgagacca gaaatgggtt attggaagtg cagaaggcct ttcgtgaagc 180
 aggcttggat tttcctaaac aggggtgttc tataacacaa gaaaattctt tggt 234

<210> 2169
 <211> 205
 <212> nucleic acid
 <213> Glycine max

<400> 2169

ttcctatgtt tgattgggca ggaggtagaa cgtcagagat gtctgcagtt ggcttgcctc 60
 cagcagccct tcagggtatt gatattagag aaatgcttgc cgggtgcatca ttgatggatg 120
 aggctaatag gagtactgtg ttaaggaata accctgcagc tctgctggct ttatgttggt 180
 attgggctac agatggtgta ggatc 205

<210> 2170
 <211> 223
 <212> nucleic acid
 <213> Glycine max

<400> 2170

tgcagggcgt tgctataact caagaaaatt ctttgcctgga taacactgca agaattgagg 60
 gttgggttagc tagatttcca atgtttgact ggggtgggagg tagaacatca gagatgtctg 120
 cagtgggcct gcttccagca gcccttcaga gcattgacat aagagaaatg cttgctgggtg 180
 cagcattaat ggatgaggcg aataggagta ctgtgataag gaa 223

<210> 2171
 <211> 218
 <212> nucleic acid
 <213> Glycine max

<400> 2171

tgcagggcgt tgctataact caagaaaatt ctttgctgga taagactgca agaattgacg 60
 gttgggttagc tagatttcca atgtttgact ggggtgggagg tagaacatca gagatgtctg 120
 cagtgggcct gcttccagca gcccttcaga gcattgacat aagagaaatg cttgctgggtg 180
 cagcattaat ggatgaggcg aataggagta ctgtgata 218

<210> 2172
 <211> 273
 <212> nucleic acid
 <213> Glycine max

<400> 2172

gtgctacgtg atagacctcc tggatcatgat tgggaacttg aacctgggtg cacatgcggt 60
 gactacttgt ttggtatgct acaggggaaca agatcagctc tgtatgcaa taaccgagag 120
 tccatcacag ttactgtaca agaagtgaca cctagaacag ttggtgctct tattgcactc 180
 tatgaacgag cagtaggaat ttatgcctcc cttgtcaaca taaatgctta tcatcaacca 240
 ggtgtggaag ctggtaaaaa agcagcaggt gaa 273

<210> 2173
 <211> 257
 <212> nucleic acid
 <213> Glycine max

<400> 2173

aacaattgag ggaaggtgta cacaatttct ttgtaacatt cattgaggtg ctacgtgata 60
 gacctcctgg tcatgattgc gaacttgaac ctggtgtcac atgcggtgac tacttgtttg 120
 gtatgttaca ggggaacaaga tcagctctgt atgccaataa ccgagagtcc atcacagtta 180
 ctgtacaaga agtgacacct agaactgttg gtgctcttat tgcactctat gaacgagcag 240
 taggaattta tgctcc 257

<210> 2174
 <211> 248
 <212> nucleic acid
 <213> Glycine max

<400> 2174

tacggctgcg agaagacgac agaaggggat tgggaacttg aacctgggtg cacatgtggt 60

gactacttgt ttggtatgct acaggggaaca aggtcggctt tgtatgccaa taaccgagag 120
 tccatcacag ttactgtaca agaagggaca ccaagaacag ttggtgctct tattgggctc 180
 tatgaacgag cagtaggaat ttatgcctcc cttgtcaaca taaatgctta tccttttccct 240
 cgtgtgga 248

<210> 2175
 <211> 236
 <212> nucleic acid
 <213> Glycine max

<400> 2175

atcctgcagc tttgctggct ttatgttggc attgggctac agatgggtga ggatcaaaag 60
 atatgggttat ccttccatat aaggacagct ttctattatt tagtagatac ttgcaacagt 120
 tggatcatgga atctctaggc aaggagtttg acttgaatgg taatcgggtt aatcaaggaa 180
 ttagtgtcta tggaaataaa ggaagcacag atcagcatgc ctacattcac caactg 236

<210> 2176
 <211> 270
 <212> nucleic acid
 <213> Glycine max

<400> 2176

cagcatgcct acattcagca actgagggaa ggtgtgcaca atttttttgt gacattcatt 60
 gaggtgctac gcgatagacc acctgggtcat gattgggagc ttgaaccagg tgtcacatgt 120
 ggtgactacc tgtttggtat gctacaggga acaaggtcag ccctgtatgc caataaccgt 180
 gaatccatca ctgtcacagt gcaagaagtg acaccagat cagttgggtgc cctttagacc 240
 ctttatgaac gggccggttg aatatatgct 270

<210> 2177
 <211> 259
 <212> nucleic acid
 <213> Glycine max

<400> 2177

ggagtttgac ttgaatggta atcgggttaa tcaaggaatt agtgtctatg gaaataaagg 60
 aagcacagat cagcatgcct acattcaaca actgagggaa ggtgtgcaca atttttttgt 120

cacggatcct gctggaattg atcatcagat tgcacaactt gggcctgagc tagcttcaac 360
ac 362

<210> 2183
<211> 243
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (197), (211), (216) ... (217), (222), (224), (226) ... (227),
(229) ... (230), (232), (234)
<223> unsure at all n locations

<400> 2183

ctgagttccg ccattacact gacatcaatg agcttccctcc acatcggctt gctgaaatca 60
gaagattctt tgaggactac aagaagaatg agaacaaaat agttgatgtt gaagactttc 120
taccggctga agctgccatt gatgccatca attactccat ggacttgtat gctgcttaca 180
tagttgagag ctaaggnact aacttctcta nagacnntgt ancncnntnn gngngetctc 240
caa 243

<210> 2184
<211> 262
<212> nucleic acid
<213> Glycine max

<400> 2184

ctcctcttaa tgagaggatt atttcatcca tgaccagaag atctgttget gcacacccgt 60
ggcacgacct tgagataggg cctggtgctc caacgatctt caattgtgtg attgagattg 120
ggaaagggag caaggtgaaa tatgaactgg acaaaaaatc gggctttatc aagatcgacc 180
gtgtccatta ctcatcagtt gtgtatcctc acaattatgg gtttatccca cgtactatct 240
gtgaggacag tgatccctg ga 262

<210> 2185
<211> 254
<212> nucleic acid
<213> Glycine max

<400> 2185

ggagccagtt cttccagggt gctttctacg ggccaaagct attggactca tgcctatgat 60
 tgatcagggt gagaaagatg acaagataat tgctgtctgt gctgatgatc ctgagtatag 120
 gcattacaat gatatcaagg accttctctc tcaccgttta gctgaaattc gtcgtttctt 180
 tgaagattac aagaagaatg agaacaagga agttgcagtg aacgactttc ttcttgcttc 240
 agctgcctat gaag 254

<210> 2186
 <211> 246
 <212> nucleic acid
 <213> Glycine max

<400> 2186

gcattattgt ctgtttgatt actactctct ttgcaactga tttctttgag atcaaggctg 60
 tcaaggaaat tgaaccagct ttgaaaaagc agcttatcat ctctacagta ctcatgactg 120
 ttggaattgc aattattagt tggattgctc tgccaacatc cttcacaatt ttcaactttg 180
 gcgctcagaa ggaagtaaag agctggcagc tgttctctct tgtgggtggt ggtctatggg 240
 ctggac 246

<210> 2187
 <211> 259
 <212> nucleic acid
 <213> Glycine max

<400> 2187

caacactggc ggtgcttggg ataatgctaa gaagtacata gaggtggtg cgtctgagca 60
 tgcaaggacc ctgggccagc aaggatctga accacataag gcagctgtta ttggagatac 120
 cattggagac cctcttaaag atacttcagg tccttcactc aacatcctca tcaagctcat 180
 ggccgttgag tcgctcgtct tcgcaccatt ttctgccact caggtggcc tgcttttcaa 240
 gatcttttga tttgagggt 259

<210> 2188
 <211> 188
 <212> nucleic acid
 <213> Glycine max

<400> 2188

gcctctgttc cgccaagcgc agataagacc caccgttcag gccaccggct gagttagggt 60
 tccggcgagg atcgggtgctg ctctgctgtc ggagcttgcg acggagatag tcgtgccagt 120
 gtgcgccgtc atcgggatcg ggtcctggct ggtgcagtgg ttctcgtgt cgcgcgtaa 180
 gctcactc 188

<210> 2189
 <211> 242
 <212> nucleic acid
 <213> Glycine max

<400> 2189

ctgctggcaa cactactgct gccataggca agggatttgc tattgggtct gccgctctgg 60
 tgtctttggc cctatttggg gcatttgtga gcagggttg aatttcaact gttgatgtct 120
 tgacacccaa ggtctttatt ggactcatag ttggtgccat gcttccttac tggttttccg 180
 ctatgaccat gaagagtgtt ggaagtgcag ctttgaagat ggttgaggag gttcgtaggc 240
 ag 242

<210> 2190
 <211> 313
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (9), (29), (31), (34), (49), (53), (64), (75), (78), (87), (91),
 (107), (110), (115), (125), (131), (140)... (141),
 (143)... (144), (156)... (157), (163), (180), (186), (203),
 (224), (239), (261)... (262), (264), (268), (281), (285),
 (287)... (288), (296)
 <223> unsure at all n locations

<400> 2190

gctctgtgng aaggettcag tactaaganc nagnctgca catatgatna gangcgagct 60
 atanaagcca gcccntgncg acttgcnttg nttagccctg tcatctntcn tggcntgggtg 120
 ctatnacttc ngctctatcn ngnttcctta ggctannaat tgnccagcctg tgccaatgcn 180
 aggacnaacc ttagcagcca ganagggagt tggataggct ttgnatactg catttaggnc 240
 tgggtgcagt atgggtttcc nncntggngg aaatgggtct ntggngnnct acattnacca 300
 tcaatctctt cag 313

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<210>      2191
<211>      119
<212>      nucleic acid
<213>      Glycine max

<220>
<221>      unsure
<222>      (9) , (31) , (41) , (44) , (59) , (68) ... (69) , (75) , (77) , (81) , (87) ,
            (90) , (112) , (118)
<223>      unsure at all n locations

<400>      2191

cccatggcnt gaccttgaga tcggacctgg ngctccaatt ntcntcaatt gtgtgattna    60
aattgggnna gggancnagg ngaaaatntgn actggacaca aagtcggggc tnatcaang    119

<210>      2192
<211>      258
<212>      nucleic acid
<213>      Glycine max

<400>      2192

agatgacaag ataattgctg tctgtgctga tgatcctgag tataggcatt acaatgatat    60
caaggagctt cctccacacc gtttagctga aattcgctgt ttctttgaag attacaagaa    120
gaatgagaac aaggaagttg cagtgaacga ctttcttcct gcctcagctg cctatgaagc    180
gatcaagcat tccatgacct tatatgcgga atacgttggtg gagaacttga ggcggtagtg    240
ttgattcctg ggtgcttg                                     258

<210>      2193
<211>      263
<212>      nucleic acid
<213>      Glycine max

<400>      2193

gcgcaacca gctgttattg cagacaacgt aggagctaatt gttggagata tcgctgggat    60
gggttcagac ttatttgggt cttatgcaga atcatcatgt gcagctttat ttgtagcatc    120
catatcatcg tttggaacaa atcatgatca cacagccatg tcatatcctc tcatcataag    180
ctccatggga attgtgggtt gcttgattac gactcttttt gcaactgatc tgtttgaact    240
taaaaacgtg agccaaatag aac                                     263

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<210> 2194
 <211> 168
 <212> nucleic acid
 <213> Glycine max

<400> 2194

eggctcgagg ggagaggaag caaggtgaga tatttacttg acaaaagaac tggaaatatt 60
 atggttgatc gtatactaca ctcatcagta gtttatcctc acaactatgg gaatattcca 120
 cgtactatatt gtgaggacag tgatcccatg gatgtcttgg gtattatg 168

<210> 2195
 <211> 194
 <212> nucleic acid
 <213> Glycine max

<400> 2195

cgcgttcaact gcaatgttat atcccctact catcagttct atgggcatta ttgtctgttt 60
 gattactact ctttttgcaa ctgatttctt tgcgatcaag gctgtcaagg aaattgaacc 120
 agctctaaaa aagcagctta tcatctctac agtactcatg actggttgaa ttgccattat 180
 tagttggatt gctc 194

<210> 2196
 <211> 190
 <212> nucleic acid
 <213> Glycine max

<400> 2196

gtgatccctt ggatgtcttg attattatgc aggagccggt tcttccaggt tgctttcttc 60
 gggccaaagc aattggtctc atgcccataa ttgatcaggg ggagaaagat gataaaatta 120
 ttgctgtctg tgctgatgat cctgagtata gacattacaa tgatatcaaa gagcttcctc 180
 cacatcgttt 190

<210> 2197
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<220>

<221> unsure
<222> (233)
<223>

<400> 2197

agtgttttgc ttttgcgtgt gtacaagatg agtgatgaga atggcgaaga acctcgagaa 60
aaccgtccgg ttccacgctt gaatgaaagg attctttcat ctctgtctag gagatcagtt 120
gctgctcacc cttgcatgat cttgaaattg gacctggagc gcctatgatt ttcaattgtg 180
ttgtggagat cactaaggga agcaagggtca aatacgaact tgacaaaaag acnggattaa 240
ttaagggtga tcggattctg tactc 265

<210> 2198
<211> 260
<212> nucleic acid
<213> Glycine max

<400> 2198

tttcaaagta tttgctttta ttttttggtg aaaaagtgtt ttgcttttgc tgttgtacaa 60
gatgagtgat gagaatggcg aagaacctcg agaaaaccgt ccggttccac gcttgaatga 120
aaggattctt tcatctctgt ctaggagatc agttgctgct cacccttggc atgatcttga 180
aattggacct ggagcgcctt gatctttcaat tgtgttgtgg agatcactaa gggaagcaag 240
gtcaaatacg aacttgacaa 260

<210> 2199
<211> 236
<212> nucleic acid
<213> Glycine max

<400> 2199

acacgtttctc tgtgactgcc tctgttccgc caagcgcagc attgccccac cgttcaggcc 60
accggctgag ttaggtttcc ggcgaggatg ggtgctgctc tgctgtcgga gcttgcgacg 120
gagatagtcg tgccagtgtg cgccgtcatc gggatcgtgt tctcgttggt gcagtggttc 180
ctcgtgtcgc gcgtaagct cactcccgac cgcaacggaa cgacgtcgtc gccgcg 236

<210> 2200
<211> 272
<212> nucleic acid

<213> Glycine max

<400> 2200

atgaaattga accagctcta aaaaagcagc ttatcatctc tacagtactc atgactgttg 60
gaattgcaat tattagttgg attgctctgc caacatcctt cacaattttc aactttggtg 120
ctcagaagga agtaaagagc tggcactggt cctctgtgtg ggtgttggtc tatgggctgg 180
acttattatt gcgtttgtta ctgagtacta tacaagcaat gcttacagtc ctgtacaaga 240
tgttgctgat tcctgccgga ctggagctgc aa 272

<210> 2201

<211> 251

<212> nucleic acid

<213> Glycine max

<400> 2201

attgaaccag ctctaaaaaa gcagcttata atctctacag tactcatgac tgttgggaatt 60
gcaattatta gttggattgc tctgccaaaca tccttcacaa ttttcaactt tgggtgctcag 120
aaggaagtaa agagctggca gctgttcctc tgtgtgggtg ttggtctatg ggctggactt 180
attattgggt ttgttactga gtactataca agcaatgctt acagtctctgt acaagatggt 240
gctgattcct g 251

<210> 2202

<211> 244

<212> nucleic acid

<213> Glycine max

<400> 2202

cggaaggctt cagtactaag agccagccct gcacatatga taagagcaag ctatgcaagc 60
cagcccttgc gactgcattg tttagcactg tatctttctt gcttggtgct ataacttcag 120
tcctatctgg tttccttggg atgaaaattg caacctatgc caatgcaagg acaaccttgg 180
aagccagaaa gggagttgga aaggctttca ttactgcatt taggtctggt gcagtgatgg 240
gttt 244

<210> 2203

<211> 268

<212> nucleic acid

ttaagtatga gctggacaag acaagtggac ttataaaggt tgatcgtatt ctttactcat 240
cagttgtcta cccacacaac tatggt 266

<210> 2206
<211> 290
<212> nucleic acid
<213> Glycine max

<400> 2206

agttttctctt atctctaagt caacatggct caccatgaag attcaagtgt atggaattcg 60
agtatacctc accctaagct caatgaaaga attttgtctt ctctgtcacg gagaactggt 120
gctgctcacc cctggcacga tttagagatt gggccaggag ctccagctgt tttcaactgt 180
gtggttgaaa ttggcaaagg cagtaagggt aagtatgagc tggacaagac aagtggactt 240
ataaagggtg atcgattctg tactcatcag ttgtctaccc acacaactat 290

<210> 2207
<211> 296
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (10), (24), (54), (94), (263)
<223> unsure at all n locations

<400> 2207

ctccgactcn ttctcttaat ccnnaagtc aacatgggct caccttggaa gatncaagtg 60
gcatgggaat tcgagtatac ctcaccctaa gctncaatga aagaattctg tcttctctgt 120
cacggagaac tggtgctgct cacccttggc acgatttaga gattggggcc aggagctcca 180
gctgttttca actgtgtggt tgaaattggc aaaggcagta aggttaagta tgagctggac 240
aagacaagtg gacttataaa ggntgacgt attctttact catcagttgt ctaccc 296

<210> 2208
<211> 259
<212> nucleic acid
<213> Glycine max

<400> 2208

ctttctctta tctctaagtc aacatggctc accttgaaga ttcaagtgca tggaattcga 60

acctcaccct aagctcaatg aaagaattct gtcttctctg tcacggagaa ctgttgctgc 120
 tcacccctgg cacgacttag agattgggcc aggagctcca gcagttttca actgtgtggt 180
 tgaaattggc aaaggaagta aggttaagta tgagctggac aagacaagtg gacttataaa 240
 gg 242

<210> 2212
 <211> 255
 <212> nucleic acid
 <213> Glycine max

<400> 2212

tccgactctt tctcttatct ctaagtcaac atggctcacc atgaagattc aagtgtatgg 60
 tattcgagta tacctcacc taagctcaat gaaagaattt tgtcttctct gtcacggaga 120
 actgttgctg ctcacccctg gcacgattta gagattgggc caggagctcc agctgttttc 180
 aactgtgtgg ttgaaattgg caaaggcagt aagggttaagt atgagctgga caagacaagt 240
 ggacttataa aggtt 255

<210> 2213
 <211> 246
 <212> nucleic acid
 <213> Glycine max

<400> 2213

tctgaactct ctctctcacc tataagtcaa catggctcat catgaagatt caagtgcattg 60
 gaattcgagt aaacctcacc ctaagctcaa tgaaagaatt ctgtcttctc tgtcacggag 120
 aactgttgct gctcaccctt ggcaagactt agagattggg ccaggagctc cagcagtttt 180
 caactgtgtg gttgaaattg gcaaaggaag taagggttaag tatgagctgg acaagacaag 240
 tggact 246

<210> 2214
 <211> 246
 <212> nucleic acid
 <213> Glycine max

<400> 2214

tctgaactct ctctctcacc tataagtcaa catggctcat catgaagatt caagtgcattg 60

gaattcgagt aaacctcacc ctaagctcaa tgaaagaatt ctgtcttctc tgtcacggag 120
aactgttgct gctcacccct ggcacgactt agagattggg ccaggagctc cagcagtttt 180
caactgtgtg gttgaaattg gcaaaggaag taaggттааg tatgagctgg acaagacaag 240
tggact 246

<210> 2215
<211> 266
<212> nucleic acid
<213> Glycine max

<400> 2215

ctcaccagtc accacctctg aactctctct ctcatctata agtcaacatg gctcatcatg 60
aagattcaag tgcattggaat tcgagtaaаc ctcaccctaa gctcaatgaa agaattctgt 120
cttctctgtc acggagaact gttgtctgtc acccctggca cgacttagag attgggccag 180
gagctccagc agttttcaac tgtgtgggtt gaaattggca aaggaagtaa ggттааgtat 240
gagctggaca agacaagtgg acttat 266

<210> 2216
<211> 248
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (238)
<223>

<400> 2216

cagtcaccac ctctgaactc tctctctcat ctataagtca acatgggtca tcatgaagat 60
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ctgtcacgga gaactgttgc tgcaccccc tggcacgact tagagattgg gccaggagct 180
ccagcagttt tcaactgtgt ggttgaaatt ggcaaaggaa gтааggttaa gtatgagnct 240
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<212> nucleic acid

<213> Glycine max

<400> 2217

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<210> 2218

<211> 246

<212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (2), (53), (61), (217), (238)

<223> unsure at all n locations

<400> 2218

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 actgttgctg ctcacccctg gcacgatttg agattgggcc aggagctcca gctgttttca 180
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<210> 2219

<211> 249

<212> nucleic acid

<213> Glycine max

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 gtcacggaga actgttgctg ctcacccctg gcacgactta gagattgggc caggagctcc 180
 agcagttttc aactgtgtgg ttgaaattgg caaaggaata acgtaagtat gagctggcag 240
 acaagtgga 249

[illegible]

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aactgttgct gctcaccctt ggcacgactt agagattggg ccaggagttc cagcagtttt 180
caactgtgtg qttgaa 196

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<400> 2222

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778

<212> nucleic acid
<213> Glycine max

<400> 2226

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gaactggtct tattatgggt gatcgatatcc ttactcatc ggttgtgtat cctcacaact 180
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<210> 2227
<211> 239
<212> nucleic acid
<213> Glycine max

<400> 2227

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gccagtcttc cgggttgctt tcttcgggcc aaagctattg gtctcatgcc tatgattgat 180
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<210> 2228
<211> 268
<212> nucleic acid
<213> Glycine max

<400> 2228

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cggttgtgta tctcacaac tatgggttta tccacgtac tatttgtgag gatgggtgatc 180
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aagctattgg actcatgcct atgattga 268

<210> 2229
<211> 269
<212> nucleic acid
<213> Glycine max

<400> 2229

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<210> 2230
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 <212> nucleic acid
 <213> Glycine max

<400> 2230

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 <212> nucleic acid
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<220>
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 <222> (20), (167)
 <223> unsure at all n locations

<400> 2231

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 ttgagatagg acctgaagct ccaaagatct tcaactgtgt ggt 283

<210> 2232

Figure 2. The effect of the initial concentration of the monomer (C_0) on the polymerization rate at different temperatures. The reaction conditions were: $[AIBN] = 0.005 \text{ mol/L}$, $[M] = 0.05 \text{ mol/L}$, $[K_2S_2O_8] = 0.005 \text{ mol/L}$, $[NaHCO_3] = 0.005 \text{ mol/L}$, $[NaHSO_3] = 0.005 \text{ mol/L}$, $[NaCl] = 0.005 \text{ mol/L}$, $[NaBr] = 0.005 \text{ mol/L}$, $[NaI] = 0.005 \text{ mol/L}$, $[NaNO_3] = 0.005 \text{ mol/L}$, $[NaNO_2] = 0.005 \text{ mol/L}$, $[Na_2SO_4] = 0.005 \text{ mol/L}$, $[Na_2CO_3] = 0.005 \text{ mol/L}$, $[Na_2C_2O_4] = 0.005 \text{ mol/L}$, $[Na_2B_4O_7] = 0.005 \text{ mol/L}$, $[Na_2SiO_3] = 0.005 \text{ mol/L}$, $[Na_2PO_3] = 0.005 \text{ mol/L}$, $[Na_2P_2O_7] = 0.005 \text{ mol/L}$, $[Na_2P_4O_{10}] = 0.005 \text{ mol/L}$, $[Na_2V_6O_{19}] = 0.005 \text{ mol/L}$, $[Na_2W_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Mo_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Cr_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Fe_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Co_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Ni_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Cu_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Zn_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Ba_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Sr_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Ca_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Mg_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Al_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Ga_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2In_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Tl_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Bi_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Pb_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Sn_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Hg_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Ag_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Au_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Pt_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Pd_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Rh_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Ir_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Os_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Re_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Mn_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Fe_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Co_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Ni_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Cu_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Zn_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Ba_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Sr_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Ca_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Mg_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Al_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Ga_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2In_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Tl_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Bi_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Pb_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Sn_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Hg_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Ag_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Au_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Pt_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Pd_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Rh_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Ir_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Os_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Re_{12}O_{42}] = 0.005 \text{ mol/L}$, $[Na_2Mn_{12}O_{42}] = 0.005 \text{ mol/L}$.

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aacaagggtt	ccagctatca	acagtcccca	aacctctgtc	ttaacgagag	gattctttca	180
tccatttcca	ggagacacgt	tgtgcacac	ccgtggcacg	atcttgagat	aggacccgaa	240
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<212> nucleic acid

<213> Glycine max

<400> 2235

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 tctcattga ggaggaagaa ggcataacg accacagcgt cgttggtgaaa tgcgctgaga 360
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<210> 2236

<211> 396

<212> nucleic acid

<213> Glycine max

<400> 2236

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<210> 2237
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 <212> nucleic acid
 <213> Glycine max

<400> 2237

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<210> 2238
 <211> 352
 <212> nucleic acid
 <213> Glycine max

<400> 2238

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<211> 251
 <212> nucleic acid
 <213> Glycine max

<400> 2239

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<210> 2240
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 <212> nucleic acid
 <213> Glycine max

<400> 2240

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 <211> 411
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (274)...(275),(312),(316)
 <223> unsure at all n locations

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 <211> 273
 <212> nucleic acid
 <213> Glycine max

<400> 2242

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<210> 2243
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 <212> nucleic acid
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<220>
 <221> unsure
 <222> (122), (279), (313)
 <223> unsure at all n locations

<400> 2243

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<210> 2244
 <211> 273
 <212> nucleic acid
 <213> Glycine max

<220>
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 <222> (9), (147), (183), (198), (229), (251), (258)
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<210> 2245
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 <212> nucleic acid
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<400> 2245

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<210> 2246
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 <212> nucleic acid
 <213> Glycine max

<400> 2246

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attggtcttg acacatctgt gaatggt 267

<210> 2247
<211> 253
<212> nucleic acid
<213> Glycine max

<400> 2247

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<212> nucleic acid
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<222> (21), (43), (275)
<223> unsure at all n locations

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<210> 2249
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<212> nucleic acid
<213> Glycine max

<400> 2249

cctagctctt gttgacattc caataacttt ggtgctatga tcatggagat caatgcatcc 60
 cccgacaaca ttaattcagt caagtacaac gtacatgaaa aacagcctta ccgaacttgg 120
 taccactttc agccccaca aaattggatg aatgatccaa atggaccaat gtactacaaa 180
 ggagtttacc actttttcta ccaacataac gcttatgcac caactttggg aggctatggg 240
 atgggggtcat ccgcatctat g 261

<210> 2250
 <211> 339
 <212> nucleic acid
 <213> Glycine max

<400> 2250

cgtccgatgg attaaaggat agtcaaactg tcctaagata tgactatgga aaatattatg 60
 cctcaaaaac catttttgag gatggaaaga acagaatggg cttattgggt tgggttaatg 120
 aatcctcaag tgtttcggat gatatcaaga aaggatgggc tggaatccat actattccaa 180
 gggccatctg gcttcataaa tctggaaaac agttgggtgca atggccgggtg gtggaaacttg 240
 aaagcttacg tgtgaatcct gtccactggc ccaacaaagt ggtcaaagggt ggtgaaatgc 300
 ttcaagttac tgggtgttact tgcgcacaag ctgacgttg 339

<210> 2251
 <211> 437
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (14)
 <223>

<400> 2251

cgaaaaacca tttntgagga tggaaagaac agtaagggtct tattggggttg ggttaatgaa 60
 tctcaagtg tttcggatga tatcaagaaa ggatgggctg gaatccatac tattccaagg 120
 gccatctggc ttcataaaatc tggaaaacag ttgggtgcaat ggccgggtgg ggaacttgaa 180
 agcttacgtg tgaatcctgt ccaactggccc accaaagtgg tcaaagggtg tgaaatgctt 240
 caagttactg gtgttactgc ggcacaggct gacgttgaaa tttcatttga cgtgaatgag 300
 tttggaaagg gcgaagtatt ggaccaatgg gtggatcccc aaattctggg tagtagaaaag 360

ggtgcagccg taaaggggtgg tttgggaccc tatggcttgc tagtttttgc ttctcgtggc 420
ttgcaagagt acacggc 437

<210> 2252
<211> 352
<212> nucleic acid
<213> Glycine max

<400> 2252

catggcggta tctccaattt tgctggttgg ggctatctgc tatctcattt atggcacggg 60
tggtcttccc attgaatcta cccaccatgt ttacagaaat cttcagactc tatctttctga 120
ttcctctgat caaccttata gaaccgctta ccatttccaa cctcccaaaa attggataaa 180
tgaccctaata ggaccaatga ggtacaaatg actttatcat ctcttctacc aatacaattc 240
aaaaggtgct gtatggggta atattgtgtg gcccactca gtatcaaata atctcgtgta 300
ttggactcct ctagatcatg ccatctaccc tctcaacct tatgatatca ac 352

<210> 2253
<211> 396
<212> nucleic acid
<213> Glycine max

<400> 2253

attccattaa aagctatacc atggccatat ctccaatttt gttgttggct atcttatctg 60
tcatttatgg caatggtggt cttcccatg aagctacca tcatgtttac agaaatcttc 120
agactctatc ttctgattcc tctgatcaac cttatagaac tgcttaccat ttccaacctc 180
gcaaaaattg gataaatgac cctaattggac caatgaggta caaaggactt taccatctgt 240
tctatcaata caatccaaaa ggtgccgtat ggggcaatat tgtctggggc cactcaatat 300
caaatagatc tgtgaattgg actccactgg atcatgccat ctacccttct caaccgtctg 360
atataaacgg ttgttggtca ggctcagcca caatac 396

<210> 2254
<211> 451
<212> nucleic acid
<213> Glycine max

<220>

<221> unsure
<222> (401)
<223>

<400> 2254

ggccgtatct ccaattttgt tgttggtggc tatcttctct ctcatttatg gcaatggtat 60
tcttcccatt gaagctaccc accatgttta cagaaatctt cagactctat cttctgattc 120
ctctgatcaa ccttatagaa ccgcttacca tttccaacct cccaaaaaatt ggataaatga 180
ccctaattgga ccaatgaggt acaaaggact ttatcatctc ttctaccaat acaatccaaa 240
agggtgctgtt tggggtaata ttgtgtgggc ccactcagta tcaaaggatc ttgtgaattg 300
gacccctcta gatcatgcca tctacccttc tcaaccgtct gatatcaacg gttgttggtc 360
aggctcagcc acaatacttc ctgggggcaa accagccatt ntatacacag gaattgaccc 420
taataatcac caagttcaaa acttagccct a 451

<210> 2255
<211> 283
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (17), (35), (52), (61), (69), (94), (103), (120), (138), (166),
(179), (202), (212), (230), (240), (273)
<223> unsure at all n locations

<400> 2255

gttttcatag gcttctnttt tctcttggtg cagtnacgaa cttctgaaga antggcagat 60
ncatccttng acacactctc actctttccg cganagggtt cangacaact ctactggtg 120
cacaggaacg aaattttngc ccttgctgtg caaggcttga agccangggc aagggaatnc 180
tgcaacatgc accaagtggg tncagagttt gnagacatcc ctgaggagan cagaaagaan 240
ctgccaaagat ggtgtcttgg agaagttttg agntccacac agg 283

<210> 2256
<211> 267
<212> nucleic acid
<213> Glycine max

<400> 2256

<211> 271
 <212> nucleic acid
 <213> Glycine max

 <220>
 <221> unsure
 <222> (4)...(5), (169), (229)
 <223> unsure at all n locations

 <400> 2259

 gtgnaagct catgttatct acagctgaga attcaactta aatggatttg aatgttcata 60
 tgtgtagtgc acaatcgcg atgcacttga gaagacaaaa tatccagatt cagatttata 120
 ttggaagaaa tttgaggata aataccactt ttcatgccaa tttactgcng acctaatagc 180
 catgaattct gctgatttta tcatcaccag tacataccag gagattgcng gaacgtaagt 240
 accgttttca tgatatatat ggttacttca g 271

<210> 2260
 <211> 245
 <212> nucleic acid
 <213> Glycine max

 <400> 2260

 ggcttgttga atgcttttgt aaaagctcca agctgagaga gcttgtgaat cttgtggtag 60
 ttggtggcta cattgatgta cagaagtcta cggacataga agaaatgagg gagatagaga 120
 aaatgcacaa tctcatagaa gaatacaact tacatggcca attccgttgg ataaaggccc 180
 aaatgaatcg cgctcgtaat ggagagctct accgttatat tgctgatgtg aaagggtgctt 240
 ttgtg 245

<210> 2261
 <211> 98
 <212> nucleic acid
 <213> Glycine max

 <400> 2261

 catgagcttg ccaaagagtt gcaaggctcag ccagattcga ttgtcggaaa ctacagtgat 60
 ggaaacattg ttgcctcttt gttggcacat aaattagg 98

<210> 2262
 <211> 209

[illegible]

tctcgaccgc gtgaagaaca tgacaggcct ggtggagatg tacggcaaga acgcgcgcct 120
gagggagctg gcgaacctcg tgatcgtcgc cggtgaccac ggcaaggagt ccaaggacag 180
ggaggagcag gcggagttca agaagatgta cagcctcatc gacgagtaca agttgaaggg 240
ccatatccgg tggatctcgg cgcagcatga accgcgtcc 279

<210> 2266
<211> 250
<212> nucleic acid
<213> Glycine max

<400> 2266

agggatctct gatttcatca ttggaaacta cagtgatggg aatcttggtg catctttatt 60
ggcttataaa atgggagtta cacagtgcac aatcgcgcat gcacttgaga agacaaaata 120
tccagattca gatttatatt ggaagaaatt tgaggataaa taccactttt catgccaatt 180
tactgctgac ctaatagcca tgaataatgc tgattttatc atcaccagta cataccagga 240
gattgcggga 250

<210> 2267
<211> 52
<212> nucleic acid
<213> Glycine max

<400> 2267

ggtgttcgga actgagcact cccacattct tcgagttccc tttagaactg ag 52

<210> 2268
<211> 236
<212> nucleic acid
<213> Glycine max

<400> 2268

caattttgta ttggagcttg attttgagcc atttaatgcc acatttcctc gtccaactcg 60
ctcagcatcc attggcaatg gtgtccaatt tctcaatcgc cacctttcat ctattatggt 120
tcgcaacaag gattccttgc agcccttgct tgatttcctc cgagctcaca aatacaaggg 180
ccatgctctg atgttaaagt atagaataca aaccatttcc aaacttcagc tgcatt 236

<210> 2269
 <211> 243
 <212> nucleic acid
 <213> Glycine max

 <400> 2269

 cagattcaga tttatattgg aatctggata ttttgtcttc tcaagtgcac gcgcgattgt 60
 gcactgtgta actcccatTT gatacactca atgaagatgc acttgagaag acaaaatata 120
 cagattcaga tttatattgg aagaaatttg aggataaata ccacttttca tgccaattta 180
 ctgctgacct aatagccatg aaaatgcgtg ttttatcatc accagtacat accaggagat 240
 tgc 243

<210> 2270
 <211> 86
 <212> nucleic acid
 <213> Glycine max

 <400> 2270

 ggtgggcagg ttgtttatat actagatcaa gtgcgtgccc ttgaaaatga gatgctcctt 60
 cggatcaaga aacagggact tgattt 86

<210> 2271
 <211> 234
 <212> nucleic acid
 <213> Glycine max

 <400> 2271

 attttataat cactagtaca taccaagaaa ttgcaggaag caagaataat gttggacaat 60
 atgagagcta cactgccttc actcttccag gactgtatcg tgttgttcat ggcattgatg 120
 tttttgatcc caagttaaT atcgtgtctc ctggtgcgga catgtgcata tattttccat 180
 actcggacag agaaaggaga ctaacttctc tacatgggtc aattgaaaaa ctgg 234

<210> 2272
 <211> 121
 <212> nucleic acid
 <213> Glycine max

 <400> 2272

 cgttcattct gttttccagt tgaagtcttt ccacagccaa tggccactga tcgtttgacc 60

cggggttcaca gtctccgtga gacgcttgat gaaaccctca ctgccaacag gaacgaaatt 120
t 121

<210> 2273
<211> 167
<212> nucleic acid
<213> Glycine max

<400> 2273

cgcaacgagt tcattctctt tctctccagg tatgttgctg ggggcaaagg aatactacaa 60
ccacatgacc tgctgtacga ggtagaaaag cttcttgaag aggatgaagg gatgcagaaa 120
ctcaaagata gcccttttgt caaagagcgt gaatctcaaa ggaagca 167

<210> 2274
<211> 221
<212> nucleic acid
<213> Glycine max

<400> 2274

gaagaactta accggggttag ttgaatggta tggcaagaac aagagactga gaaatttggt 60
gaaccttgct atagtaggag gcttctttgc cccttcaaaa tcaaaagata gggagggaaat 120
ggcagaaata aaaaatatgc atgacttaat tgataagtac caactcaagg gtcaatttag 180
atggattgct gctcagacta ataggtatcg caatggagag c 221

<210> 2275
<211> 166
<212> nucleic acid
<213> Glycine max

<400> 2275

gtcaagggaa agactgtgat gtggaatgac agaattcaaa acccagatgc agtccaacat 60
gtgctgagga gagctgagga gtatcgaggc acagtgcctc ctgaaacgcg ctactcagag 120
tttgagcacg agggccagga gattgggttag aggagagggg ggggtg 166

<210> 2276
<211> 222
<212> nucleic acid
<213> Glycine max

<220>
 <221> unsure
 <222> (184), (188)
 <223> unsure at all n locations

<400> 2276

cgtgtgaaga acatcacagg actcgtggag tggtagcgta agaacgcgaa gtagagggag 60
 ttggtgaacc ttgtggttgt tgccggagac aggaggaagg agtcgaagga cttggaagag 120
 aaggccgaga tgaagaagat gtacggcctg atcgagacca aagtgttgaa cgggcaactc 180
 agantgantt cagtatagag taaccgatct aggaacggag ag 222

<210> 2277
 <211> 220
 <212> nucleic acid
 <213> Glycine max

<400> 2277

ctttgagcag agcaaggctg atccatctca ctgggcaaaa atctcccccg gtggactcaa 60
 gggatatcatg aggcatacac atggccaatt tactcggaca ggctcttgac actcactggt 120
 gtgtatcgct tctggaagca cgtgaccaat cttgaacgcc gtgcgagcaa acgttacctc 180
 gagatgttct atgctctcca gtaacgcaaa ttggttgagt 220

<210> 2278
 <211> 169
 <212> nucleic acid
 <213> Glycine max

<400> 2278

atgggagtta cacagtgcac aatcgcgcat gcacttgaga agacaaaata tccagattca 60
 gatttatatt ggaagaaatt tgaggataaa taccactttt catggcaatt tactgctgac 120
 ctaatagcca tgataaatgc tgatttaatc atcaccagtc attaccagg 169

<210> 2279
 <211> 258
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure

<222> (34)
<223>

<400> 2279

ggttactttg cccaagataa tgtctgagtc gtancctgac acgtggtggg caggttgtgt 60
acatcttagg tcaagttcgt gccttgagga atgagatgct caaccgcac aagacacaag 120
gccttgatat cagcctcgt attctcatta ttactcgtct tcgccctgat gcagtaggaa 180
ctacctgtgg ccaacgtcta gagaccgtat atgatactga atattgtgac attctccgag 240
ttccttgag aaccgaaa 258

<210> 2280
<211> 265
<212> nucleic acid
<213> Glycine max

<400> 2280

gcagacagat aaaggaatcc tgcacatg gatttctcgc ttgcacattt acccctatct 60
tgagagggtt actcaggatg caacagccaa gattcttgag ttcatggaag ggaaaccaga 120
tctagttatt ggaaattaca ctgatggaaa ttggtagca tcaactaatgg ctagaaaact 180
tgggataact cagggaacta tagcacatgc tttagagaag accaagtatg aagactcaga 240
tgtcaagtgg caagagttgg accccc 265

<210> 2281
<211> 266
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (98), (122), (190)
<223> unsure at all n locations

<400> 2281

gggttcaatt totcaaccga catctgtcat cgttcatggt tcgtagcaaa gaaagtttgg 60
aacctctcct tgcatttctt cgcacacaca gatatgangg tcatgcaatg atgctaaatg 120
anogcattta taacttatcc aagctccagt cttccttggc aaaggcagaa gaattacttt 180
ctagactacn acccaatgca ccatattctg actttgaata tgaactacaa ggattgggat 240

ttgagagcgg ttggggtgat acagca

266

<210> 2282
<211> 254
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (214), (222), (241)
<223> unsure at all n locations

<400> 2282

cacaacacgg gttgcctcac tttactctgc cgcagatggt tatgttataa actctcaggg 60
gctgggagaa acatttggac gtgtgactat agaagcaatg gcgtttggtc ttccggttct 120
tgggacggac gctggaggaa cacaggagat tgttgagcac aatgttacag gtctcttcat 180
cctgttggac atccggggaa tcttgttctt gcanagatcc cnggttttta ctcaaaaacc 240
ngtgggaaag gaac 254

<210> 2283
<211> 152
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (57), (66)
<223> unsure at all n locations

<400> 2283

gctggaagca aggacactgt tggacagtac gaatctcaca cagcatacaa tcacccngga 60
ctctancgcy ttgtgcatgg tagggatgtc tttgagcgag aattcaacat tggtccccct 120
ggagctgata aaaccattta cttgccccca ca 152

<210> 2284
<211> 224
<212> nucleic acid
<213> Glycine max

<400> 2284

gcctggtgtg tgggagtact gacagcgcat gtgcacgctc ttattgtaga ggagttgcaa 60

The following table shows the results of the analysis of variance for the effect of the type of the stimulus on the response time. The results show that the response time is significantly affected by the type of the stimulus ($F(1, 10) = 10.0, p < 0.05$). The response time is significantly longer for the complex stimulus than for the simple stimulus.

<400> 2285

<400> 2286

<400> 2287

801

<210> 2288
 <211> 293
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (272)
 <223>

<400> 2288

gcgtttcaag gaggagcttg ttgaggggaag ttcaaacggc aactttgtgc ttgagttgga 60
 ctttgaaccg tttaatgcat ctttccctcg cccaactctg aacaagtcca ttggaaatgg 120
 cgtcgagttc ctcaaccgcc acctttcggc caagctcttc catgacaagg agaaccctca 180
 gtaactgctt gagttcctca ggcttcacag ttataaggga aagaccatga tgttgaacga 240
 caaagttcaa agcctggatt ctctccacat angatttgag aaaagcagaa gag 293

<210> 2289
 <211> 293
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (45)
 <223>

<400> 2289

cttcttcttt tacgttcatt ctgttttcat agtgaggatc ttctnaagaa atggcaaadc 60
 accctttgac acactctcac tctttccgcg agagggttga tgaaactctc actggtcaca 120
 ggaatgaaat tttggccctt ttgtcaaagc ttgaagccaa gggcaaggga atcctgcaac 180
 accaccaggt gggtgcagag tttgaagaaa tccctgagga gagcagaaaag aaactccaag 240
 gtggtgtctt tggagaagtt ttgagatcta cacaggaagc catagtgtctg cca 293

<210> 2290
 <211> 267
 <212> nucleic acid
 <213> Glycine max

<400> 2290

gatcttctga agaaatggca aatcaccctt tgacacactc tcactctttc cgcgagaggt 60
 ttgatccaac tctcactggt cacaggaatg aaattttggc ccttttgtca aggcttgaag 120
 ccaagggcaa gggaatcctg caacaccacc aggtggttgc agagtttgaa gaaatccctg 180
 aggagagcag aaagaaactc caaggtggtg tctttggaga agttttgaga tctacacagg 240
 aagccatagt gctgccacca tttgtgg 267

<210> 2291
 <211> 267
 <212> nucleic acid
 <213> Glycine max

<400> 2291

ccttcctttt ttgcgttcat tctgttttca tagtgacgaa cttctgaaga aatggcaaata 60
 catcctttga cacactctca ctctttccgc gagaggtttg atgaaactct cactggtcac 120
 aggaacgaaa ttttggccct tctgtcaagg cttgaagcca agggcaaggg aatcctgcaa 180
 catcaccaag tggttgcaga gtttgaagaa atccctgagg agagcagaaa gaaactccaa 240
 gatggtgtct ttggagaagt tttgaga 267

<210> 2292
 <211> 268
 <212> nucleic acid
 <213> Glycine max

<400> 2292

gatcttctga agaaatggca aatcaccctt tgacacactc tcactctttc cgcgagaggt 60
 ttgataaaac tctcactggt cacaggaatg aaattttggc ccttttgtca aggcttgaag 120
 ccaagggcaa gggaatcctg caacaccacc aggtggttgc agagtttgaa gaaatccctg 180
 aggagagcag aaagaaactc caaggtggtg tctttggaga agttttgaga tctacacagt 240
 aagccatagt gctgccacca tttgtggc 268

<210> 2293
 <211> 259
 <212> nucleic acid
 <213> Glycine max

<400> 2293

cttcacccct tccttttttg cgttcattct gttttcatag tgacgaactt ctgaagaaat 60
 ggcaaatcat cctttgacac actctcactc tttccgcgag aggtttgatg aaactctcac 120
 tggtcacagg aacgaaattt tggcccttct gtcaaggctt gaagccaagg gcaaggggaat 180
 cctgcaacat caccaagtgg ttgcagagtt tgaagaaatc cctgaggaga gcagaaagaa 240
 actccaagat ggtgtcttt 259

<210> 2294
 <211> 257
 <212> nucleic acid
 <213> Glycine max

<400> 2294

tccttttttg cgttcattct gttttcatag tgacgaactt ctgaagaaat ggcaaatcat 60
 cctttgacac actctcactc tttccgcgag aggtttgatg aaactctcac tggtcacagg 120
 aacgaaattt tggcccttct gtcaaggctt gaagccaagg gcaaggggaat cctgcaacat 180
 caccaagtgg ttgcagagtt tgaagaaatc cctgaggaga gcagaaagaa actccaagat 240
 ggtgtctttg gagaagt 257

<210> 2295
 <211> 279
 <212> nucleic acid
 <213> Glycine max

<400> 2295

tagcacccct tcttctttta cgtacattct gttttcatag tgaggttctt ctgaagaaat 60
 ggcaaatcac gcctttgaca cactctcact ctttccgcga gaggtttgat gtaactctca 120
 ctaggtcaca ggaatgaaat tttggccctt tatgtcaagg cttgaagcca agggcaaggg 180
 aattctgcaa caccaccagg tggttgcaga gtttgaagaa atccctgagg agagcagaaa 240
 gaaactccaa ggtggtgtct ttggagaagt tttgagatc 279

<210> 2296
 <211> 243
 <212> nucleic acid
 <213> Glycine max

<400> 2296

caccccttct tcttttacgt tcattctggt ttcatagtga ggatcttctg aagaaatggc 60
 aaatcacccct ttgacacact ctactcttt ccgcgagagg tttgatgaaa ctctcactgg 120
 tcacaggaat gaaattttgg cctttttgtc aaggcttgaa gccaagggca agggaatcct 180
 gcaacaccac caggtgggtg cagagtttga agaaatccct gaggagagca gaaagaaaact 240
 cca 243

<210> 2297
 <211> 244
 <212> nucleic acid
 <213> Glycine max
 <400> 2297

cttcttcttt tacgttcatt ctgttttcat agtgaggatc ttctgaagaa atggcaaadc 60
 accctttgac acactctcac tctttccgcg agaggtttga tgaaactctc actggtcaca 120
 ggaatgaaat tttggccctt ttgtcaaggc ttgaagccaa gggcaagggga atcctgcaac 180
 accaccaggt ggttgcagag tttgaagaaa tccctgagga gagcagaaaag aaactccaag 240
 gtgg 244

<210> 2298
 <211> 281
 <212> nucleic acid
 <213> Glycine max
 <220>
 <221> unsure
 <222> (59), (138), (142), (146), (187), (217), (233), (237),
 (240)... (241), (269)
 <223> unsure at all n locations
 <400> 2298

ccttcacccc ttcctttttt gcgttcattc tgttttcata gtgacgaact tctgaagana 60
 tggcaaataca tcctttgaca cactctcact gctttccgcg agaggtttga tgaaactctc 120
 actggtcaca ggaacganat tntggncctt ctgtcaaggc ttgaagccaa gggcaagggga 180
 tcctgcnaca tcaccaagtg gttgcagagt ttgaagngat ccctgaggag agnaganacn 240
 natcccagga tgggtgtcttt ggagaagtnt tgagatccac a 281

<210> 2299

<211> 268
 <212> nucleic acid
 <213> Glycine max

 <400> 2299

 attttccctt tcaacccttc cttttttgog ttcattctgt tttcatagtg acgtacttct 60
 gatgaaatgg caaatcatcc tttgacacac tctcactctt tccgcgagag gtttgattta 120
 actctcactg gtcacaggaa cgaaattttg gtccttctgt caaggcttga agccaagggc 180
 tagggaatcc tgcaacatca ccaagtgggt gcagagtttg aagaaatccc tgaggagagc 240
 agaaagaaac tccaagatgg tgtctttg 268

<210> 2300
 <211> 346
 <212> nucleic acid
 <213> Glycine max

 <400> 2300

 ctcattctat tttcatagtg acgaacttct gaagaaatgg caaatcatcc tttgacacac 60
 tctcactctt tccgcgagag gtctgatgaa actctcactg gtcacaggaa cgaaattcta 120
 gcccttctgt caagagctga acccaagggc aagggaatcc tgcaacatca ccaagtgggt 180
 gcagagtttg acgaaatccc tgaggcgagc agaaagaaac tccaagatga tgtctttcga 240
 gcaattttga gatccacaca ggaagccata atgctaccac catttgtagc tcttgctggt 300
 cgaccatggc ctctgtatg ggactatctg cgtgtgaatg tgcaca 346

<210> 2301
 <211> 245
 <212> nucleic acid
 <213> Glycine max

 <400> 2301

 gaagaaatgg caaatcatcc tttgacacac tctcactctt tccgcgagag gtttgatgaa 60
 actctcactg gtcacaggaa cgaaattttg gcccttctgt caaggcttga agccaagggc 120
 aagggaatcc tgcaacatca tcaagtgggt gcagagtttg aagaaatccc tgaggagagc 180
 agaaagaaac tccaagatgg tgtctttgga gaagttttga gatccacaca ggaagccata 240
 gtgct 245

\mathbb{P}^n and \mathbb{P}^m are projective spaces of dimension n and m respectively. \mathbb{P}^n is a complex manifold of dimension n . \mathbb{P}^m is a complex manifold of dimension m . \mathbb{P}^n and \mathbb{P}^m are projective spaces of dimension n and m respectively. \mathbb{P}^n is a complex manifold of dimension n . \mathbb{P}^m is a complex manifold of dimension m .

ttcccttca	ccccttcctt	ttttgcgttc	attctgtttt	catagtgcg	aacttctgaa	60
gaaatggcaa	atcatccttt	gacacactct	cactctttcc	gcgagagggt	tgatgaaact	120
ctcactggtc	acaggaacga	aattttggcc	cttctgtcaa	ggcttgaagc	caagggcaag	180
ggaatcctgc	aacatcacca	agtggttgca	gagtttgaag	aaatccctga	gga	233

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<220>
<221>      unsure
<222>      (88)
<223>
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cactctttcc	gcgagagggt	tgatgtanat	ctcactggtc	acaggaacga	aattttggcc	120
cttctgtcaa	ggcttgaagc	caagggcaag	ggaatcctgc	aacatcacca	agtggttgca	180
gagtttgaag	aaatccctga	ggagagcaga	aagaaactcc	aagatgggtg	ctttggagaa	240
gttttgagat	ccacacaaca	ta				262

<400> 2304

807

atccctaacg agagcagaaa

260

<210> 2305
<211> 249
<212> nucleic acid
<213> Glycine max

<400> 2305

cccttccttt ttctggttca ttctgttttc atagtgcga acttctgaag aaatggcaaa 60

tcataccttg acacactctc actctttccg cgagagggtt gatgaaactc tcaactggtca 120

caggaacgaa attttggccc ttctgtcaag gcttgaagcc aagggcaagg gaatcctgca 180

acatcaccaa gtggttgcaag agtttgaaga aatccctgag gagagcagaa agaaactcca 240

agatggtgt 249

<210> 2306
<211> 265
<212> nucleic acid
<213> Glycine max

<400> 2306

ttgcaccctg cctgttttgc gtgcattctg tcttcatagt gacgaacttc tggagaaatg 60

gcaaatactc ctttgacaca ctctcactct ttccgcgaga ggtttgatga gactctcact 120

ggtcacatga acgagattat tgcccttctg tcaaggcttg aagccaaggg caagggaatc 180

ctgcaacatc accaagtggg tgcagagttt gaagaaatcc ctgaggagag cagaaagaga 240

ctccgagatg gtgccttgga gaagt 265

<210> 2307
<211> 255
<212> nucleic acid
<213> Glycine max

<400> 2307

cccttcacc ccttcttctt ttacgttcat tctgttttca tagtgaggat cttctgaaga 60

aatggcaaat cacccttga cacactctca ctctttccgc gagagggttg atgaaactct 120

cactggtcac aggaatgaaa ttttggccct ttgtcaagg cttgaagcca agggcaaggg 180

aatcctgcaa caccaccagg tgggtgcaga gtttgcagaa atccctgagg agagcagaaa 240

aaactccaag gtggt 255

<210> 2308
<211> 157
<212> nucleic acid
<213> Glycine max

<400> 2308

cactctcact ctttccgcga gaggtttgat gtaactctca ctggtcacag gaatgaaatt 60

ttggcccttt tgtcaaggct tgaagccaag ggcatgggaa tccttcaaca ccaccagggtg 120

gttgacagagt ttgaagaaat cctgaggag agcagaa 157

<210> 2309
<211> 236
<212> nucleic acid
<213> Glycine max

<400> 2309

cttcacccct tccttttttg cgttcattct gttttcatag tgacgaactt ctgaagaaat 60

ggcaaactcat cctttgacac actctcactc tttccgcgag aggtttgatg aaactctcac 120

tggtcacagg aacgaaattt tggcccttct gtcaaggctt gaagccaagg gcaaggggaat 180

cctgcaacat caccaagtgg ttgcagagtt tgaagaaatc cctgaggaga gcagaa 236

<210> 2310
<211> 312
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (39)
<223>

<400> 2310

gctccgcatt cggctcgagc atatacgttc attcactgnt catagtgagg atcctctgaa 60

gaaatggcaa ctcacccttt gacacactca cactccttcc gcgagaggta tgatccaact 120

ctcactggtc acaggaatgc aatcatggcc ctaatgtcca ggcttgaagc caagggcaag 180

ggcatcctgc aacaccacca ggtggttgca gagtttgaag aaatccctga ggagagcaga 240

aagacactcc aaagtgggtgt ctttggagaa gttttgacct ctacacatga agccatccccg 300
ctgccaccat tt 312

<210> 2311
<211> 147
<212> nucleic acid
<213> Glycine max

<400> 2311

ccccctcacc ccttcttctt ttacgttcat tctgttttca tagtgaggat cttctgaaga 60
aatggcaaat caccctttga cacactctca ctctttccgc gagagggttg atgaaactct 120
cactggtcac aggaatgaaa ttttggc 147

<210> 2312
<211> 241
<212> nucleic acid
<213> Glycine max

<400> 2312

ttcccccttca ccccttcctt ttttgcgttc attctgtttt catagtgcgc aacttctgaa 60
gatatggcaa atcatccttt gacacactct cactctttcc gcgagagggt tgatgaaact 120
ctcactggtc caggaacgaa attttggccc ttctgtcaag gcttgaagcc aagggcaagg 180
gaatcctgca acatcaccaa gtggttgag agtttgagga atccccctgag gaagccaaaa 240
a 241

<210> 2313
<211> 206
<212> nucleic acid
<213> Glycine max

<400> 2313

cccttcttct tttgcgttca ttctgttttc atagtgatga tcttcttgaa taatggcaaaa 60
tcaccctttg acacactctc actctttccg cgagagggtt gatgaaactc tcactgggtca 120
caggaatgaa attttgggcc gtttgtcaat gcttgaagcc aacggcatcg gaatcctgta 180
ccactaccag gtggatgaat attttg 206

<210> 2314

<211> 299
 <212> nucleic acid
 <213> Glycine max

 <400> 2314

 ccctactctg aaaagcagaa cagacttaca gccctgcatg gttcaattga acagctatta 60
 tttgctcctg agcagactga tgaatacatt ggtttattga aagacaagtc aaagcccata 120
 attttctcca tggcaaggct agacagagta aaaaacataa ctggattggg agaaagcttt 180
 ggtaagaaca gcaaattgag ggaactgggc aaccttggtca tagtagctgg ttatattgat 240
 gtaaagaagt ccagtgcag agaagaaatt gcagaaattg agagatgcat gagctcatg 299

<210> 2315
 <211> 271
 <212> nucleic acid
 <213> Glycine max

 <400> 2315

 gcagaacagg cttacagccc tgcattgggtc aattgaaaag ctgttatttg atcctgagca 60
 gactgatgaa tacattgggt cattgaaaga caagtcaaag ccataattt tctccatggc 120
 aaggctagac agagtgaaaa acataactgg attggtagaa tgctttggta agaacagcaa 180
 attgagggaa ctggtcaacc ttgtttagt agctgggttat attgatgtaa agaagtcgag 240
 tgacagagca gaaatggcag aaattgagaa g 271

<210> 2316
 <211> 235
 <212> nucleic acid
 <213> Glycine max

 <400> 2316

 gtttattgaa agacaagtca aagcccataa ttttctccat ggcaaggcta gacagagtaa 60
 aaaacataac tggattggta gaaagctttg gtaagaacag caaattgagg gaactgggtca 120
 accttgctcat agtagctggg tatattgatg taaagaagtc cagtgcaga gaagaaattg 180
 cagaaattga gaagatgcat gagctcatga aaaagtataa cttagttggg gattt 235

<210> 2317
 <211> 241
 <212> nucleic acid

<213> Glycine max

<400> 2317

gcagaacagg cttacagccc tgcattgggtc aattgaaaag ctgttatattg atcctgagca 60
gactgatgaa tacattgggtt cattgaaaaga caagtcaaag cccataattt tctccatggc 120
aaggctagac agagtgaaaa acataactgg attggtagaa tgcttttggtg agaacagcaa 180
attgaggggaa ctgggtcaacc ttgtttagt agctgggttat attgatgtaa aaagtcgagt 240
g 241

<210> 2318

<211> 261

<212> nucleic acid

<213> Glycine max

<400> 2318

agtatgagag ccacgctggg tttactcttc ctgggctcta tagggttgtc catggcattg 60
atgtttttga tcccaagttc aatattgtct ctctgggagc tgatatgtca atatatttcc 120
cctactctga aaagcagaac agacttacag ccctgcatgg ttcaattgaa cagctattat 180
ttgtctctga gcagactgat gaatacattg gtttattgaa agacaagtca aagcccataa 240
ttttctccat ggcaaggcta g 261

<210> 2319

<211> 258

<212> nucleic acid

<213> Glycine max

<400> 2319

atcaccagta cataccagga gattgctgga acgaaaaata ctgttggcca gtatgagagc 60
cacgctgggtt ttactcttcc tgggctctat aggggtgtcc atggcatgat gtttttgatc 120
ccaagttcaa tattgggtctc tctggggagc tgatatgtca atatatttcc cctactctga 180
aaagcagaac agacttacag ccctgcatgg ttcaattgaa cagctattat ttgtctctga 240
gcagactgat gaatacat 258

<210> 2320

<211> 229

<212> nucleic acid

<213> Glycine max
 <400> 2320
 acctaatagc catgaataat gctgatttta tcatcaccag tacataccag gagattgcag 60
 gaacgaaaaa tactgttggc cagtatgaga gccacgctgg ttttactctt cctgggctct 120
 atagggttgt ccatggcatt gatgtttttg atcccaagtt caatattgtc tctcctggag 180
 ctgatatgtc aatatatttc ccctactctg aaaagcagaa cagacttac 229

<210> 2321
 <211> 222
 <212> nucleic acid
 <213> Glycine max

<400> 2321
 tgctgatttt atcatcacca gtacatacca ggagattgca ggaacgaaaa atactgttgg 60
 ccagtatgag agccacgctg gttttactct tcttgggctc tatagggttg tccatggcat 120
 tgatgttttt gatcccaagt tcaatattgt ctctcctgga gctgatatgt caatatattt 180
 ccctactct gaaaagcaga acagacttac agccctgcat gg 222

<210> 2322
 <211> 252
 <212> nucleic acid
 <213> Glycine max

<400> 2322
 cgcacttgag ttttataaat aatgtccgtg atttttagtat ttttaccttc tctttctctc 60
 ctcttatcga aagcttaatc acaaaaactaa aatcacggac attatttata aaactcaagt 120
 gcgacaaaact ccaaatgaga aagaaaaagc cggtgatttt agttttgtga ttaagctttc 180
 gataagaagt gagaaagaga aggaaaaaaa aagttgcttt tgtttatgta cgtaccatga 240
 tttggacctt aa 252

<210> 2323
 <211> 109
 <212> nucleic acid
 <213> Glycine max

<400> 2323

00337403.012600

cgcaattgag ttttataaat aatgtccgtg atttttagttt tgtcgccttc tctttctctc 60
ctcttatcga aagcgtaatc acaaaaactaa aatcacggac attatttat 109

<210> 2324
<211> 262
<212> nucleic acid
<213> Glycine max

<400> 2324

cataatttga ttgatgaact tgacaacatc cctggcgatg atcaagcaat agtggatcct 60
aaaaatgggc cctttgggtga aatcgtcaag tctgcaaagg aagccatagt tttgcctcct 120
tttgtggcaa tagcagttcg tccaagacct ggtgtttggg aatatgtccg tgtaaatgtc 180
tctgagctca gcgtggagca attaagtgtt tctgaatatc tcagcttcaa ggaagaactt 240
gtagatggaa agattaatga ca 262

<210> 2325
<211> 272
<212> nucleic acid
<213> Glycine max

<400> 2325

ctctcatgct tttttccact tgcaaaactcc aaattcactc tgacagtttt tgcagctaata 60
taagaagaac ttaacagaca tataaacata gtgatcggtta tgtctacgca accaaagctt 120
ggtcggattc ccagtatcaa gaccgagttg aagacactct ctctgctcac cgtaacgaac 180
tcattttctct cctctccagg tatgtggctc aggggagatg gatttttgcaa ccccataatt 240
tgattgatga acttgacaac atccctggcg at 272

<210> 2326
<211> 264
<212> nucleic acid
<213> Glycine max

<400> 2326

ctttaactca tgctttttcc cacttgcaaa ctccaaattc actctctgac agtttttgca 60
gccaatgaag aagaacttaa cagacatata aacatagtga tcgtcatgtc tacgcaacca 120
aagcttgggc ggatttccag tatcagagac cgagttgaag acactctctc tgctcaccgt 180

aacgaactca tttctctcat ctccaggtat gtggctcagg ggaaagggat tttgcaaccc 240
cataatttga ttgatgaact tgac 264

<210> 2327
<211> 189
<212> nucleic acid
<213> Glycine max

<400> 2327

gctttttccc acttgcaaac tccaaattca ctctctgaca gtttttgcag ctaattaaga 60
agaacttaac agacatataa acatagtgat cgtcatgtct acgcaaccaa agcttggtcg 120
gatttccagt atcagagacc gagttgaaga cactctctct gctcacgta acgaactcat 180
ttctctcct 189

<210> 2328
<211> 279
<212> nucleic acid
<213> Glycine max

<400> 2328

gcatgcagcc actgcttgag ttctcaggc ttcacagtta taagggaag accatgatgt 60
tgaatgacaa agttcaaagc ctggattctc tccaacatgt tttgagaaaa gcagaagagt 120
atctgatttc agttgctcct gaaacacct actcggaatt cgagaacaga ttccgggaga 180
ttggtctgga gagggggtgg ggtgacactg ccgagcgtgt cctcgagatg atccagcttc 240
tcttgacct tcttgaggca cctgaccctt gcaccctcg 279

<210> 2329
<211> 286
<212> nucleic acid
<213> Glycine max

<400> 2329

gagagtatgc agccactgct tgaattcctc aggcttcaca gttataaggg aaagaccatg 60
atgttgaatg acaaagttca aagcctggat tctctccagc atgttttgag aaaagcagaa 120
gagtatctga cttcagttgc tctgaaaca ccctactcag aattcgagaa caaattccgg 180
gaaattggtt tggagagggg gtggggtgac atcgccgagc gtgtcctcga gatgatccag 240

cttctcttgg accttcttga ggcacccgac ccttgctacc togaga 286

<210> 2330
 <211> 269
 <212> nucleic acid
 <213> Glycine max

<400> 2330

agcaactctg aacaagtcca ttggaaatgg cgtcgagttc ctcaaccgcc acctttcggc 60
 caagctcttc catgacaagg agagcatgca gccactgctt gagttcctca ggcttcacag 120
 ttataaggga aagaccatga tgttgaatga caaagttcaa agcctggatt ctctccaaca 180
 tgttttgaga aaagcagaag agtatctgat ttcagttgct cctgaaacac cctactcgga 240
 attcgaaaac agattccggg agattggtc 269

<210> 2331
 <211> 267
 <212> nucleic acid
 <213> Glycine max
 <220>
 <221> unsure
 <222> (212), (216), (255)
 <223> unsure at all n locations

<400> 2331

gcatgcagcc actgcttgag ttcctcaggc ttcacagtta taagggaaag accatgatgt 60
 tgaatgacaa agttcaaagc ctggattctc tccaacatgt tttgagaaaa gcagaagagt 120
 atctgatttc agttgctcct gaaacaccct aactcggaat tcgagaaaca gattccggga 180
 gattgggtctg gagagggggg ggggtgacat gncgancgtg tcctcgagat gatccagttc 240
 tctggacttc ttgangcact gaccttg 267

<210> 2332
 <211> 152
 <212> nucleic acid
 <213> Glycine max

<400> 2332

tgcagccact gcttgaattc ctcaggcttc acagttataa gggaaagacc atgatgttga 60
 atgacaaagt tcaaagcctg gattctctcc agcatgtttt gagaaaagca gaagagtatc 120

tgacttcagtg tgctcctgaa acaccctact ca 152

<210> 2333
 <211> 271
 <212> nucleic acid
 <213> Glycine max

<400> 2333

ctctccaaca tgttttgaga aaagcagaag agtatctgat ttcagttgct cctgaaacac 60
 cctactcgga attcgagaac agattccggg agattgggtct ggagaggtgg tggggtgaca 120
 ctgccgagcg tgtcctcgag atgatccagc ttctcctgga ccttcttgat gcacctgacc 180
 cttgcaccct cgagacattc cttggaagag tccctatggt ctataatgtt gttacctttc 240
 tccccatggt tactttgccc aagataatgt c 271

<210> 2334
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<400> 2334

ctccaacatg tgttgagaaa agcagaagag tatctgattt cagttgctcc tgaaacaccc 60
 tactcggaat tcgagaacag attccgggag attgggtctgg agaggggggtg ggggtgacact 120
 gccgagcgtg tctcgcgagat gatccagctt ctctcggacc ttcttgaggc acctgaccct 180
 tgcaccctcg aatcattcct tggaagagtc cctatgggtct tcaatgttgt taccctttct 240
 ccccatggtt actttgcca agata 265

<210> 2335
 <211> 243
 <212> nucleic acid
 <213> Glycine max

<400> 2335

tgctgagatc attgagcatg gtatatcagg attccacatt gatccttacc atcctgatca 60
 agcttcagag ctattgggtg aatttttcca aaagagcaag gaggaccag accattggaa 120
 gaaaatatct aatgggtggc ttcaaagaat ttatgaaagg tacacttgga agatttattc 180
 tgaaaggctt atgaccttg cgggagttta tagtttctgg aaatacgttt ccaaattaga 240

003349 04609
 66370 6372260

gag 243

<210> 2336
<211> 251
<212> nucleic acid
<213> Glycine max

<400> 2336

gctacttgcc atgggtgggtcc ggctgagatc attgagcatg gtatatcagg attccacatt 60
gatccttata accctgatca agcttcacag ctattagttg aatTTTTcca aaagagcaag 120
gaggacccaa gccattggaa gaaaatatct gatgggtggtc ttcaaagaat ttatgaaagg 180
tacacgtgga agatttatct cgaaaggctt atgacttttg cgggagttta tagtttctgg 240
aaatacgttt c 251

<210> 2337
<211> 244
<212> nucleic acid
<213> Glycine max

<400> 2337

ggagttaccc agtgcacaat cgcgcatgca cttgagaaga caaaatatcc agattcagat 60
ttatattgga agaaatttga ggataaatac cacttttcat gccaatTTac tgctgaccta 120
atagccatga ataatgctga ttttataatc accagtacat accaggagat tgcaggaacg 180
aaaatactgt tggccagtat gagagtcaca ctggttttac ttttcttggg ctctataggg 240
ttgt 244

<210> 2338
<211> 241
<212> nucleic acid
<213> Glycine max

<400> 2338

gcacaatcgc gcatgcactt gagaagacaa aatatccaga ttcagattta tattggaaga 60
aatttgagga taaataccac ttttcatgcc aatttactgc tgaccttaata gccatgaata 120
atgctgattt tatcatcacc agtacatacc aggagattgc aggaacgaaa aatactgttg 180
gccagtatga gagccacgct ggttttactc ttcttgggct ctataggggt gtccatggca 240

t

241

<210> 2339
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<400> 2339

cttcttttgag aagtgcaagc ttgacccaac tcaactgggac aagatctcaa aggctggtct 60
 ccagcgtatt gaagagaagt acacatggca aatttactct cagaggcttc tcaactctcac 120
 cgggtgtctat ggcttctgga agcatgtgtc taaccttgac cgccgtgaga gccgccgcta 180
 tctcgagatg ttctatgctc tcaagtaccg caaattggct gagtctgtgc cccttgctgc 240
 tgagtaaact gaggataaag agttg 265

<210> 2340
 <211> 258
 <212> nucleic acid
 <213> Glycine max

<400> 2340

ggctggtctc cagcgtattg aagagaagta cacatggcaa atttactctc agaggcttct 60
 cactctcacc ggtgtctatg gcttctggaa gcatgtgtct aaccttgacc gccgtgagag 120
 ccgccgctat ctcgagatgt tctatgctct caagtaccgc aaattggctg agtctgtgcc 180
 ccttgctgct gagtaaactg aggataaaga gttggataaa gaaatggagg aaccggcttt 240
 ttctttgtac attggagt 258

<210> 2341
 <211> 276
 <212> nucleic acid
 <213> Glycine max

<400> 2341

gaagtcttga gatctacaca ggaagccata gttttgccac catggggttg tctggctggt 60
 cgtccaagac ctggtgtgtg ggagtacctg agagtgaatg tgcacgctct tgttgttgag 120
 gagttgcaac ctgctgagta cctgcacttc aaggaagaac ttgttgacgg aagttctaata 180
 ggcaactttg tgcttgagtt ggactttgaa ccattcaatg cagccttccc ccgccaacc 240

276

<400> 2342

<400> 2343

<210>	2344
<211>	191
<212>	nucleic acid
<213>	Glycine max

<400> 2344
 ggtgctttcg ttcagcctgc tttctatgaa gcttttggac ttacagttgt ggaggccatg 60
 aattgtggac tccccacttt tgctacttgc catggtgggc cggetgagat cattgagcat 120
 ggtatatcag gattccacat tgatccttat caccctgac aagcttcaca gctattagtt 180
 gaatttttcc a 191

<210> 2345
 <211> 257
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (116)
 <223>

<400> 2345
 ctctccatgg ttactttgcc caagataatg tcttggggta cctgacactg gtggacaggt 60
 tgtttacatc ttggatcgag ttcgtgcctt ggagaatgag atgctcaacc gcacnagaa 120
 acaaggcctt gatatcacc ctcgtattct cattattact cgtcttctcc ctgatgcagt 180
 aggaactacc tgtggccaac gtctagagag gtatatgata ctgaatattg tgacattctc 240
 cgagttcctt tcagaac 257

<210> 2346
 <211> 218
 <212> nucleic acid
 <213> Glycine max

<400> 2346
 gtcttgggat accctgacac tgggtggacag gttgtttaca tcttggatca agttcgtgcc 60
 ttggagaatg agatgctcaa ccgcatcaag aaacaaggcc ttgatatac ccctcgtatt 120
 ctcattatca ctcgtcttct ccctgatgca gtaggaacta cctgtggcca acgtctagag 180
 agggatatatg atactgaata ttgtgacatt ctcagagt 218

<210> 2347
 <211> 253
 <212> nucleic acid

<213> Glycine max

<400> 2347

ggattccttg cagcccttgc ttgatttcct ccgagctcac aaatacaagg gccatgctct 60
gttggttaaat gatagaatac aaaccatttc caaacttcag tctgcattgg ccaaggctga 120
ggattatctc tctaagcttg cacatgatac actctattca gagtttgaat atgtattgca 180
aggcatgggt tttgagagag gttgggggtgc tactgctgaa cgggtatttg agatgatgca 240
tctgctattg gat 253

<210> 2348

<211> 311

<212> nucleic acid

<213> Glycine max

<400> 2348

tcgaacgaga tgaagaagat gtacggcctg atcgagacct acaagttgaa cggccaattc 60
agatggattt catcgcagat gaaccgtgtg aggactggag agctctaccg cgtgatctgc 120
gacaccaggg gtgctttcgt gcagcctgct gtatacgagg ctttttggtt gacagtgggt 180
gaggccatga cttgcggctt gccaacattc gccacatgca atggtggtcc tgctgagatc 240
attgtgcacg gcaagtctgg cttccacatt gacccttacc atggtgaccg tgctgctgat 300
ctccttggtg a 311

<210> 2349

<211> 342

<212> nucleic acid

<213> Glycine max

<400> 2349

tggagctttc gtgcagccgg ctatatacga ggcttttcgt ttgacagtgg ttgaggccat 60
gacttggtggg ttgccaacat tcgccacatg caatggtggt cctgctgaga tcattgtgca 120
tggcaagtct ggcttccaca ttgaccctta ccatggtgac cgtgctgctg atctccttgt 180
tgacttcttt gagaagtgca agcttgaccc aaccactgg gaaacaatct caaaggctgg 240
tctccagcgt attgaagaga agtacacatg gcaaatttac tcacagaggc ttctcactct 300
cactgggtgtc tatggcttct ggaagcatgt gtctaaccct ga 342

<210> 2350
 <211> 305
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (52), (80), (97), (104), (239), (276)
 <223> unsure at all n locations

<400> 2350

gcactccaac atgttctgag gaaagctgag gagtatctgg gcacagtgcc tnttgaaaact 60
 ccctactcag aatttgagcn caagttccag gagattngtt tggngagagg gtgggggtgac 120
 aacgcggagg tgtgccttga gtcaattcaa cttctcttgg atcttcttga ggcccctgac 180
 ccgtgcaccc ttgagacttt ccttggaaga atccctatgg tgttcaatgt tgttattcnt 240
 tctcccatg gttactttgc ccaagataat gtcttnggat accctgacac tgggtggccag 300
 gttgt 305

<210> 2351
 <211> 277
 <212> nucleic acid
 <213> Glycine max

<400> 2351

ctgttggaca gtacgaatct cacacagcct tcacccttcc tggactctac cgcgttgtgc 60
 atggtattga tgtctttgat ccaaaattca acattgtctc ccctggagct gatcaaacca 120
 tttacttccc ccacactgaa accagccgta ggttgacatc cttccaccct gaaatcgaag 180
 aactccttta cagctcagtg gagaatgaag aacacatatg tgtgctgaag gaccgcagca 240
 agccaattat cttcaccatg gcaagggttg atcgagt 277

<210> 2352
 <211> 278
 <212> nucleic acid
 <213> Glycine max

<400> 2352

caatgttgtt attctttctc cccatgggta ccctgcccac gataatgtct tgggataccc 60
 tgacactggg ggccagggtg tttacatctt ggatcaagtt cgtgctttgg agaagagat 120

gctccatcgc attaagcaac aaggattgga cattgttccct cgtattctca ttatcaccgc 180
tcttctcccc gatgcagtag gaactacttg tggccaacgt cttgagaagg tgttcggaac 240
tgagcaactcc cacattcttc gagttccctt tagaactg 278

<210> 2353
<211> 273
<212> nucleic acid
<213> Glycine max

<400> 2353

gccatgaacc acacagattt cattatcacc agtaccttcc aggagattgc tggaagcaag 60
gacactgttg gacagtaga atctcacaca gccttcaccc ttcttggaact ctaccgcgtt 120
gtgcatggta ttgatgtctt tgatccaaaa ttcaacattg tctcccttg agctgatcaa 180
accatttact tccccacac tgaaaccagc cgtaggttga catccttcca ccttgaaatc 240
gaagaactcc tttacagctc agtggagaat gaa 273

<210> 2354
<211> 283
<212> nucleic acid
<213> Glycine max

<400> 2354

caaattcaac attgtctccc ctggagctga tcaaaccatt tacttcccc acactgaaac 60
cagccgtagg ttgacatcct tccaccctga aatcgaagaa ctcttttaca gctcagtgga 120
gaatgaagaa cacatatgtg tgctgaagga ccgcagcaag ccaattatct tcaccatggc 180
aaggttggat cgagtgaaga acatcacagg acttgtggag tggtaggta agaacgcgaa 240
ctgagggagc tgggtgaacct tgtggttggt gctggagaca gga 283

<210> 2355
<211> 271
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (25), (47), (49)
<223> unsure at all n locations

<400> 2355
 ggcttttggg ttgacagtgg ttgangccat gacttgcggc ttgccancnt tcgccacatg 60
 caatgggtggg cctgctgaga tcattgtgca cggcaagtct ggcttccaca ttgaccctta 120
 ccatgggtgac cgtgctgctg atctccttgt tgacttcttt gagaagtgca agcttgaccc 180
 aactcactgg gacaagctct caaaggctgg tctccagcgt attgaagaga agtacacatg 240
 gcaaatttac tctcagaggc ttctcactct c 271

<210> 2356
 <211> 273
 <212> nucleic acid
 <213> Glycine max

<400> 2356
 ctgaaatcga agaactcctt tacagctcag tggagaatga agaacacata tgtgtgctga 60
 aggaccgcag caagccaatt atcttcacca tggcaagggt ggatcgagtg aagaacatca 120
 caggacttgt ggagtggtag ggtaagaacg cgaactgagg gagctggtag accttgtggg 180
 tgttgctgga gacaggagga aggagtcaaa ggacttgga gaaaaggccg agatgaagaa 240
 gatgtacggc ctgatcgaga cctacaagtt gaa 273

<210> 2357
 <211> 278
 <212> nucleic acid
 <213> Glycine max

<400> 2357
 atcaaaccat ttacttcccc cacactgaaa ccagccgtag gttgacatcc ttccaccctg 60
 aaatcgaaga actcctttac agctcagtgg agaatgaaga acacatatgt gtgctgaagg 120
 accgcagcaa gcccaattatc ttgccatgg caagggttga tcgagtgaag aacatcacag 180
 gacttgtgga gtggtacggg aagaacgcga agctgagggg gctggtgaac cttgtgggtg 240
 ttgctggaga caggaggaag gagtcaaagg acttgga 278

<210> 2358
 <211> 325
 <212> nucleic acid
 <213> Glycine max

<400> 2358
 aggagtcgaa ggacttggaa gagaaggccg agatgaagaa gatgtatggc ctcatcgaga 60
 cctacaagtt gaacggccaa ttcagatgga tatcctctca gatgaaccgt gtgaggaacg 120
 gagagctcta ccgtgtcatc tgtgacacaa ggggtgcctt tgtgcagcct gcagtttatg 180
 aggcccttgg gttgactgtg gttgaggcca tgacttgtgg gttgccaacg tttgccacat 240
 gcaatggtgg tcctgctgag atcattgtgc atggaaaatc tggttaccac attgatcctt 300
 accatggtga ccatgctgct gagat 325

<210> 2359
 <211> 274
 <212> nucleic acid
 <213> Glycine max

<400> 2359
 ggccatactt ggaaacttac actgaggatg ttgctcatga gcttgccaaa gagttgcaag 60
 gcaagccaga tctgattgtc ggaaactaca gtgatggaaa cattgttgcc tctttgttgg 120
 cacataaatt aggagtcact caggtaccat tgctcatgca cttgagaaga ccaaataccc 180
 cgaatccgac atttactgga aaaaattgga agagagatac cacttctctt gccaatcac 240
 agctgatcta tttgccatga accacacaga tttc 274

<210> 2360
 <211> 276
 <212> nucleic acid
 <213> Glycine max

<400> 2360
 gccaatcag atggatttca tcgcagatga accgtgtgag gaatggagag ctctaccgcg 60
 tgatctgca caccaggggt gctttcgtgc agcctgctgt atacgaggct tttggtttga 120
 cagtggttga ggccatgact tgcggcttgc caacattcgc cacatgcaat ggtggctctg 180
 ctgagatcat tgtgcacggc aagtctggct tccacattga ccctaccatg gtgaccgtgc 240
 tgctgatctc ctgttgactt ctttgagaag tgcaag 276

<210> 2361
 <211> 267
 <212> nucleic acid

<213> Glycine max
 <400> 2361
 ccgatgcagt aggaactact tgtggccaac gtcttgagaa ggtgttcgga actgagcact 60
 cccacattct tcgagttcgc tttagaactg agaagggaat tggtcgcaag tggatctcaa 120
 gattcgaagt ctggccctac ttggaaaactt aactgagga tggtgcccac gagcttgcca 180
 aagagttgca aggcaagcca gatctgattg ttggaaaacta cagtgatgga aacattgtcg 240
 cttctttggtt ggcacataaa ttaggtg 267

<210> 2362
 <211> 263
 <212> nucleic acid
 <213> Glycine max
 <400> 2362
 ccaagatgta aacaacctgg atcaagttcg tgctttggag aatgagatgc tccatcgcat 60
 taagcaacaa ggattggaca ttgttcctcg tattctcatt atcacccgtc ttctccccga 120
 tgcagtagga actacttggtg gccaacgtct tgagaagggtg ttcggaactg agcactccca 180
 cattcttcga gttcccttta gaactgagaa gggaattggt cgcaagtgga tctcaagatt 240
 cgaagtctgg ccctacttgg aaa 263

<210> 2363
 <211> 265
 <212> nucleic acid
 <213> Glycine max
 <400> 2363
 actcagtgta ccattgctca cgcacttgag aagaccaa atccccgaatc cgacatttac 60
 tggaaaaaat tggaagagag ataccacttc tcttgccaat tcacagctga tctatttgcc 120
 atgaaccaca cagatttcat tacaagcagt accttccagg agattgctgg aagcaaggac 180
 actgttggac agtacgaatc tcacacagcc ttcacccttc ctggactcta ccgcgttgtg 240
 catggtattg atgtctttga tccaa 265

<210> 2364
 <211> 328
 <212> nucleic acid

<213> Glycine max
 <400> 2364

gctcaaccgc atcaagaaac aaggccttga tatcaccctt cgtattctca ttattactcg 60
 tcttctccct gatgcagtag gaactacctg tggccaacgt ctagagaggg tatatgatac 120
 tgaatattgt gacattctcc gagttccttt cagaaccgaa aaggggaattg ttcgcaaatg 180
 gatctcaaga ttogaagtct ggccatacct agagacttac actgaggatg ttgcccttga 240
 acttgccaag gagttgcaag ccaagccaga tctgatcggt ggaaactaca gtgatggaaa 300
 cattgttgcc tctttgtag cacataaa 328

<210> 2365
 <211> 340
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (81), (304), (334)
 <223> unsure at all n locations

<400> 2365

ccatggttga ggccatgact tgcggcttgc caacattcgc cacatgcaat ggtggtcctg 60
 ctgagatcat tgtgcacggc nagtctggct tccacattga cccttaccat ggtgaccgtg 120
 ctgctgatct cctgttgact tctttgagaa gtgcaagctt gacccaactc actgggacaa 180
 gatctcaaag gctggtctcc agcgtattga agagaagtac acatggcaaa tttactctca 240
 gaggttctca tctcaacggt gtctatgggt ctggaagcat gtgtctaact tgaacgcgtg 300
 agancgcgta tctgagagtc tagtctcagt acgnaatggt 340

<210> 2366
 <211> 273
 <212> nucleic acid
 <213> Glycine max

<400> 2366

catgagcttg ccaaagagtt gcaaggcaag ccagatctga ttgtcggaaa ctacagtgat 60
 ggaaacattg ttgcctcttt gttggtcat aaattaggag tcactcagtg taccattgct 120
 catgcacttg agaagaccaa ataccccgaa tccgacattt actggaaaaa attggaagag 180

agataccact tctcttgcca attcacagct gatctatttg ccatgaacca cacagatttc 240
attatcacca gtaccttcca ggagattgct gga 273

<210> 2367
<211> 262
<212> nucleic acid
<213> Glycine max

<400> 2367

gtggtacggt aagaacgcca actgagggag ctggtgaacc ttgtggttgt tgctggagac 60
aggaggaagg agtcaaagga cttggaagaa aaggccgaga tgaagaagat gtacggcctg 120
atcgagacct acaagttgaa cggccaattc agatggattt catcgagat gaaccgtgtg 180
aggaatggag agctctaccg cgtgatctgc gacaccaggg gtgctttcgt gcagcctgct 240
gtatacgagg ctttttggtt ga 262

<210> 2368
<211> 263
<212> nucleic acid
<213> Glycine max

<400> 2368

gtggtacggt aagaacgcca agctgagggg gctggtgaac cttgtggttg ttgctggaga 60
caggaggaag gagtcaaagg acttgaaga aaaggccgag atgaagaaga tgtacggcct 120
gatcgagacc tacaagttga acggccaatt cagatggatt tcatcgaga tgaaccgtgt 180
gaggaatgga gagctctacc gcgtgatctg cgacaccagg ggtgctttcg tgcagcctgc 240
tgtatacgag gcttttggtt tga 263

<210> 2369
<211> 255
<212> nucleic acid
<213> Glycine max

<400> 2369

ctggaaaata ttggaagaga gataccactt ctcttgccaa ttcacagctg atctatttgc 60
catgaaccac acagatttca ttatcaccag taccttcag gagattgctg gaagcaagga 120
cactgttgga cagtacgaat ctacacagc cttcaccctt cctggactct accgcgttgt 180

gcatggtatt gatgtctttg atccaaaatt caacattgtc tcccctggag ctgatcaaac 240
catttacttc cccca 255

<210> 2370
<211> 251
<212> nucleic acid
<213> Glycine max

<400> 2370

cttgaagaa aaggccgaga tgaagaagat gtacggcctg atcgagacct acaagttgaa 60
cggccaattc agatggattt catcgagat gaaccgtgtg aggaatggag agctctaccg 120
cgtgatctgc gacaccaggg gtgctttcgt gcagcctgct gtatacgagg cttttggttt 180
gacagtgggtt gaggccatga cttgcggctt gccaacattc gccacatgca atggtgggtcc 240
tgctgagatc a 251

<210> 2371
<211> 262
<212> nucleic acid
<213> Glycine max

<400> 2371

ccgtcttctc cccgctgcag taggaactac ttgtggccaa cgtcttgaga aggtgttcgg 60
aactgagcac tcccacattc ttogagttcc ctttagaact gagaagggaa ttgttcgcaa 120
gtggatctca agattcgaag tctggcccta cttggaaaact taaactgagg atgttgccca 180
cgagcttgcc aaagagttga aggcaagcca gatctgattg ttggaaaacta cagtgatgga 240
aacattgtcg cttctttggtt gg 262

<210> 2372
<211> 277
<212> nucleic acid
<213> Glycine max

<400> 2372

cttgaggccc ctgacccttg cacccttgag actttccttg gaagaattcc tatggtcttc 60
aatgttgtca ttctttctcc ccatggttac tttgccaag ataatgtctt gggccaccct 120
gacactggtg gccaggttgt ttacatcttg gatcaagttc gtgctttgga gaacgagatg 180

cagccggcta tatacgaggc ttttggtttg acagtgggtg aggccatgac ttgtgggttg 240
ccaacattcg ccacatgcaa tgggtggctct gctgagatca ttgtgcatg 289

<210> 2379
<211> 256
<212> nucleic acid
<213> Glycine max

<400> 2379

cgcgtgatct gcgacaccag ggggtgctttc gtgcagcctg ctgtatacga ggctttttggt 60
ttgacagtgg ttgaggccat gacttgccgc ttgccaacat tcgccacatg caatgggtgg 120
cctgctgaga tcattgtgca cggcaagtct ggcttccaca ttgaccctta ccatgggtgac 180
cgtgctgctg atctccttgt tgacttcttt ggaagtgcaa gcttgaccca actcactggg 240
acaagatctc aaaggc 256

<210> 2380
<211> 273
<212> nucleic acid
<213> Glycine max

<400> 2380

cttgagaagg tgttcggaac cgagcactcc cacattcttc gagttccctt tagaactgag 60
aaggggaattg ttcgtcagtg gatctcaaga ttcgaagtct ggccatactt ggaaacttac 120
actgaggatg ttgctcatga gcttgccaaa gagttgcaag gcaagccaga tctgattgtc 180
ggaaactaca gtgatggaaa cattgttgcc tctttgttgg cacataaatt aggagtcact 240
cagtgtacca ttgctcatgc acttgagaag acc 273

<210> 2381
<211> 254
<212> nucleic acid
<213> Glycine max

<400> 2381

acatgagctt gccaaagagt tgcaaggcaa gccagatctg attgtcggaa actacagtga 60
tggaacatt gttgcctctt tgttggcaca taaattagga gtcactcagt gtaccattgc 120
tcatgcactt gagaagacca aataccccga atccgacatt tactggaaaa aattggaaga 180

gagataccac ttctcttgcc aattcacagc tgatctatct gccatgaacc acacagattt 240
cattatcacc agta 254

<210> 2382
<211> 245
<212> nucleic acid
<213> Glycine max

<400> 2382

ttgacagtgg ttgaggccat gacttgccgc ttgccaacat tcgccacatg caatgggtgg 60
cctgctgaga tcattgtgca cggcaagtct ggcttccaca ttgaccctta ccatgggtgac 120
cgtgctgctg atctccttgt tgacttcttt gagaagtgca agcttgaccc aaccactgg 180
gacaagagct caaaggctgg tctccagcgt attgaagaga agtacacatg gcaaatttac 240
tctca 245

<210> 2383
<211> 253
<212> nucleic acid
<213> Glycine max

<400> 2383

gaatggagag ctctaccgcg tgatctgcga caccaggggt gctttcgtgc agcctgctgt 60
atacgaggct tttggtttga cagtggttga cgccatgact tgcggcttgc caacattcgc 120
cacatgcaat ggtggctctg ctgagatcat tgtgcacggc aagtctggct tccacattga 180
cccttaccat ggtgaccgtg ctgctgatct ccttggtgac ttctttgaga agtgcaagct 240
tgaccaact cac 253

<210> 2384
<211> 274
<212> nucleic acid
<213> Glycine max

<400> 2384

cagatctgat tgttggaac tacagtgatg gaaacattgt cgcttctttg ttggcacata 60
aattaggtgt cactcagtgt accattgctc acgcacttga gaagaccaa taccccaat 120
ccgacattta ctggaaaaa ttggaagaga gataccactt ctcttgccaa ttcacagctg 180

atctatattgc catgaaccac acagatttca ttatcaccag taccttccag ggattgctgg 240
aagcaaggac actggttgac agtacgaatc tcac 274

<210> 2385
<211> 254
<212> nucleic acid
<213> Glycine max

<400> 2385

tcgaagaact cctttacagc tcagtggaga atgaagaaca catatgtgtg ctgaaagacc 60
gcagcaagcc aattatcttc accatggcaa ggttgatcg agtgaagaac atcacaggac 120
ttgtggagtgt gtacggtaag aacgcgaact gagggagctg gtgaaccttg tggttgttgc 180
tgagagacagg aggaaggagt caaaggactt ggaagaaaag gccgagatga agaagatgta 240
cggcctgatc gaga 254

<210> 2386
<211> 249
<212> nucleic acid
<213> Glycine max

<400> 2386

aaagactttg atgttgaatg acagaattca aaaccagat gcactccaac atgttctgag 60
gaaagctgag gagtatctgg gcacagtgcc tcctgaaact ccctactcag aatttgagca 120
caagttccag gagattgggtt tggagagagg gtgggggtgac aacgcagagc gtgttcttga 180
gtcaattcaa cttctcttgg atcttcttga ggccccctgac ccttgacccc ttgagacttt 240
ccttgaag 249

<210> 2387
<211> 253
<212> nucleic acid
<213> Glycine max

<400> 2387

caaaattcaa cattgtctcc cctggagctg atcaaaccat ttacttcccc cacactgaaa 60
ccagccgtag gttgacatcc ttccaccctg aaatcgaaga actcctttac agctcagtgg 120
agaatgaaga acacatatgt gtgctgaagg accgcagcaa gccaatatc ttcaccatgg 180

caaggttgga tgcagtgaag aacatcacag gacttgtgga gtggtacggt aagaacgcga 240
actgagggag ctg 253

<210> 2388
<211> 242
<212> nucleic acid
<213> Glycine max

<400> 2388

gggaattggt cgcaagtgga totcaagatt cgaagtctgg ccctacttgg aaacttacac 60
tgaggatggt gccacgagc ttgccaaaga gttgcaaggc aagccagatc tgattgttgg 120
aaactacagt gatggaaaca ttgtcgcttc tttgttggca cataaattag gtgtcactca 180
gtgtaccatt gctcacgcac ttgagaagac caaatacccc gaatccgaca tttactggaa 240
aa 242

<210> 2389
<211> 234
<212> nucleic acid
<213> Glycine max

<400> 2389

gttgcaaggc aagccagatc tgattgttgg aaactacagt gatggaaaca ttgtcgcttc 60
tttgttggca cataaattag gtgtcactca gtgtaccatt gctcacgcac ttgagaagac 120
caaatacccc gaatccgaca tttactggaa aaaattggaa gagagatacc acttctcttg 180
ccaattcaca gctgatctat ttgccatgaa ccacacagat ttcattatca ccag 234

<210> 2390
<211> 239
<212> nucleic acid
<213> Glycine max

<400> 2390

accgcgttgt gcatggtatt gatgtctttg atccaaaatt caacattgtc tcccctggag 60
ctgatcaaac catttacttc cccacactg aaaccagccg taggttgaca tccttccacc 120
ctgaaatcga agaactcctt tacagctcag tggagaatga agaacacata tgtgtgctga 180
aggaccgcag caagccaatt atcttcacca tggcaagggt ggatcgagtg aagaacatc 239

<210> 2391
 <211> 267
 <212> nucleic acid
 <213> Glycine max

 <400> 2391

 attctccccg atgcaatcgg aactacttgt ggccaacgtc ttgagaaggt gttcgggaacc 60
 gagcactccc acattcttcg agttcccttt agaactgaga aggggaattgt tcgtcagtgg 120
 atctcaagat tcgaagtctg gccatacttg gaaacttaca ctgaggatgt tgctcatgag 180
 cttgccaaaag agttgcaagg caagccagat ctgattgtcg gaaactacag tgatggaaaac 240
 attgatgcct ctttgttggc acataaa 267

<210> 2392
 <211> 270
 <212> nucleic acid
 <213> Glycine max

 <400> 2392

 cgtagtagct cggaatcgct cgagctcgag cggatgtctt tgatccaaaa ttcaacattg 60
 tctcccctgg agctgatcaa accatttact tccccacac tgaaaccagc cgtaggttga 120
 catccttcca cctgaaatc gaagaactcc ttacagctc agtggagaat gaagaacaca 180
 tatgtgtgct gaaggaccgc agcaagccaa ttatcttcac catggcaagg ttggaccgag 240
 tgaagaacat cacaggactt gtggagtgg 270

<210> 2393
 <211> 284
 <212> nucleic acid
 <213> Glycine max

 <400> 2393

 acaggaggaa ggagtccaag gacttgaag agaaggccga gatgaagaag atgtatggcc 60
 tcatcgagac ctacaagttg aacggccaat tcagatggat ctctctcag atgaaccgtg 120
 tgaggaacgg agagctctac cgtgtcatct gtgacacaag ggggtgccttt gtgcagcctg 180
 cagtttatga ggcccttggg ttgactgtgg ttgaggccat gacttgtggg ttaccaacat 240
 ttgccacatg caatgggtgg cctgctgaga tcattgtgca tgga 284

<210> 2394
 <211> 247
 <212> nucleic acid
 <213> Glycine max

<400> 2394

cgcggttgatc atgggtattga tgtctttgat ccaaaattca acattgtctc ccctggagct 60
 gatcaaacca ttacttccc ccacactgaa accagccgta gggtgacatc cttccaccct 120
 gaaatcgaag aactccttta cactcagtgg agaatagaaga acacatatgt gtgctgaagg 180
 accgcagcaa gcccaattatc ttcacccatgg caaggttgga tcgagtgaag aacatcacag 240
 gacttgt 247

<210> 2395
 <211> 247
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (70)
 <223>

<400> 2395

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 tcattatcan cagtaccttc caggagattg ctggaagcaa ggacactgtt ggacagtacg 120
 aatctcacac agcctcacc ttcctggact ctaccgcgtt gtgcatggta ttgatgtctt 180
 tgatccaaaa ttcaacattg tctcccctgg agctgatcaa accatttact tcccccacac 240
 tgaaacc 247

<210> 2396
 <211> 279
 <212> nucleic acid
 <213> Glycine max

<400> 2396

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 aacacatatg cgtgctgaag gaccgcagca agccgattat cttcaccatg gcaaggttg 120

accgtgtgaa gaacatcaca gactcgtgga gtgggtacggt aagaacgcga actgaaggga 180
 gttggtgaac cttgtggttg ttgccggaga caggaggaag gagtcgaagg acttggaaga 240
 gaaggctgag atgaagaaga tgtacggcct gatcgagac 279

<210> 2397
 <211> 260
 <212> nucleic acid
 <213> Glycine max

<400> 2397

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 gctttagaac tgagaaggga attgttcgca agtggatctc aagattcgaa gtctggccct 120
 acttggaac ttacactgag gatgttgccc acgagcttgc caaagagttg caaggcaagc 180
 cagatctgat tgttggaac tacagtgatg gaaacattgt cgcttctttg ttggcacata 240
 aattaggtgt cactcagtgt 260

<210> 2398
 <211> 210
 <212> nucleic acid
 <213> Glycine max

<400> 2398

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 actcagtgtt ccattgctca tgcacttgag aagaccaa atccccgaatc cgacatttac 120
 tggaaaaaat tgggaagagag ataccacttc tcttgccaat tcacagctga tctatttgcc 180
 atgaaccaca cagatttcat tatcaccagt 210

<210> 2399
 <211> 243
 <212> nucleic acid
 <213> Glycine max

<400> 2399

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 ggaaacattg ttgcctcttt gttggcacat aaattaggag tcaactcagtg taccattgct 120
 catgcacttg agaagaccaa ataccgccga tccgacattt actggaaaaa attggaagag 180

agataccact tctcttgcca attcacagct gatctatttg ccatgaacca cacagatttc 240
att 243

<210> 2400
<211> 257
<212> nucleic acid
<213> Glycine max

<400> 2400

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cggaaccgag cactcccaca ttcttcgagt tccctttaga actgagaagg gaattgttcg 180
tcagtggatc tcaagattcg aagtctggcc atacttgga aattacactg aggatgttgc 240
tcatgagctt gccaaag 257

<210> 2401
<211> 286
<212> nucleic acid
<213> Glycine max

<400> 2401

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aaacctcgtg gtggtggccg gagacaggag gaaggagtcc aaggacttgg aagagaaggc 180
cgagatgaag aagatgtatg gcctcatoga gacctacaag ttgaacggcc aattcagatg 240
gatctcctct cagatgaacc gtgtgaggaa cggagagctc taccgt 286

<210> 2402
<211> 275
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (25)
<223>

<400> 2402

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gtgaagaaca tcacaggact cgtggagtgg tacggtaaga acgcgaactg agggagttgg 180
tgaaccttgt ggttgttgcc ggagacagga ggaaggagtc gaaggacttg gaagagaagg 240
ctgagatgaa gaagatgtac ggcctgatcg agacc 275

<210> 2403
<211> 249
<212> nucleic acid
<213> Glycine max

<400> 2403

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aagaagatgt acggcctgat cgagacctac aagttgaacg ggcaattcag atggatttca 120
tctcagatga accgtgtgag gaacggagag ctgtaccgtg tgatctgcga caccaaggga 180
gctttcgtgc agccggctat atacgaggct tttggtttga cagtggttga ggccatgact 240
tgtgggttg 249

<210> 2404
<211> 271
<212> nucleic acid
<213> Glycine max

<400> 2404

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agtggatctc caagattcga agtctggcca tacttggaac cttacactga ggatgttgct 120
catgagcttg ccaaagagtt gcaaggcaag ccagatctga ttgtcggaaa ctacagtgat 180
ggaaacattg ttgcctcttt gttggcacat aaattaggag tcactcagtg taccattgct 240
catgcacttg agaagaccaa ataccccgaa t 271

<210> 2405
<211> 251
<212> nucleic acid
<213> Glycine max

<400> 2405

gataatgtct tgggataccc tgacactggg gccagggttg ttacatctt ggatcaagtt 60

cgtgcttttg agaacgagat gctccatcgc attaagcaac aaggattgga cattgtacct 120
cgtattctca ttatcaccgc tcttctcccc gatgcaatcg gtactacttg tggccaacgt 180
cttgagaagg tgttcggaac cgagcactcc cacattcttc gagttctctt tagaactgag 240
aagggaattg t 251

<210> 2406
<211> 247
<212> nucleic acid
<213> Glycine max

<400> 2406

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ttgtcattct ttctcccat gggtactttg cccaagataa tgtcttgga taccctgaca 180
ctgggtggcca gggtgtttac atcttgatc aagttcgtgc tttggagaac gagatgctcc 240
atcgcat 247

<210> 2407
<211> 282
<212> nucleic acid
<213> Glycine max

<400> 2407

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ccttcttgag gcacctgacc cttgcaccct cgagacattc cttggaagag tccctatggt 120
cttcaatggt gttatcctt ctcccatgg ttactttgcc caagataatg tcttgggata 180
ccctgacact ggtggacagg ttgtttacat cttggatcaa gttcgtgcct tggagaatga 240
gatgctcaac cgcataaga aacaaggcct tgatatcacc cc 282

<210> 2408
<211> 309
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (13), (21), (68), (138), (140), (151), (222), (257), (294)

$$\begin{array}{ccccccc} \Gamma_{\text{odd}}^{(0)} & \Gamma_{\text{odd}}^{(1)} & \Gamma_{\text{odd}}^{(2)} & \Gamma_{\text{odd}}^{(3)} & \Gamma_{\text{odd}}^{(4)} & \Gamma_{\text{odd}}^{(5)} & \Gamma_{\text{odd}}^{(6)} \\ \Gamma_{\text{even}}^{(0)} & \Gamma_{\text{even}}^{(1)} & \Gamma_{\text{even}}^{(2)} & \Gamma_{\text{even}}^{(3)} & \Gamma_{\text{even}}^{(4)} & \Gamma_{\text{even}}^{(5)} & \Gamma_{\text{even}}^{(6)} \end{array}$$

catcactgta	gtntccaaca	ntcagatctg	gaaacattgt	tgcctctttg	ttagcacata	60
aattaggngt	aactcagtgt	accattgctc	atgctctaga	aaagaccaag	taccctgagt	120
ctgacattta	ctggaaanan	tttgaagaga	natatcattt	ctcatgccaa	tttactgctg	180
atctttttgc	aatgaaccac	acagacttta	tcatcaccag	cnccttccaa	gagattgctg	240
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accgtgttg						309

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ccttccaccc cgaaatcgaa gaacttcttt acagctctgt ggagaatgaa gaacacatat    180
gcgtgctgaa ggaccgcagc aagccgatta tcttcaccat ggcaagggtg gaccgtgtga    240
agaacatcac a                                                    251

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<400>	2410					
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tgatgtcttt	gatccaaaat	tcaacattgt	ctccctgga	gctgatcaaa	ccatttactt	180
cccccccacc	gaaactagcc	gtaggttgac	ctccttcac	cccgaaatcg	aagaacttct	240
ttacagct						248

843

<211> 250
 <212> nucleic acid
 <213> Glycine max

 <400> 2411

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 ccgtgtgagg atggagagct ctaccgcgtg atctgcgaca ccaggggtgc tttcgtgcag 180
 cctgctgtat acgaggcttt tggtttgaca gtggttgagg ccatgacttg cggtttgcca 240
 acattcgcca 250

<210> 2412
 <211> 253
 <212> nucleic acid
 <213> Glycine max

 <400> 2412

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 cctcctgaaa ctccctactc agaatttgag gacaagttcc aggagattgg tttggcgaga 120
 gggcggggtg acaagcagag cgtgttcttg agtcaattca acttctcttg gatcttcttg 180
 aggccctga cccttgcaac cttgagactt tccttggaag aattcctatg gtcttcaatg 240
 ttgtcattct ttc 253

<210> 2413
 <211> 237
 <212> nucleic acid
 <213> Glycine max

 <400> 2413

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 aattaggtgt cactcagtgt accattgctc acgcacttga gaagaccaa taccctgaat 120
 ccgacattta ctggaaaata ttggaagaga gataccactt ctcttgccaa tccccgctg 180
 atctatttgc catgaaccac acagatttca ttatcaccag taccttcag gagattg 237

<210> 2414
 <211> 264
 <212> nucleic acid

<213> Glycine max

<400> 2414

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ccgtgttgatg cacggcattg atgtctttga tccaaaattc aacattgtct ccccgagct 120
gatcaaacca ttacttccc cccacccgaa actagccgta ggttgacctc cttccacccc 180
gaaatogaag aacttcttta cagctctgtg gagaatgaag aacacatatg cgtgctgaag 240
gaccgcagca agccgattat cttc 264

<210> 2415

<211> 246

<212> nucleic acid

<213> Glycine max

<400> 2415

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ttggaccgtg tgaagaacat cacaggactc gtggagtggc acggttaagaa cgcgaactga 120
gggagttggt gaaccttggt gttgttgccg gagacaggag gaaggagtcg aaggacttgg 180
aagagaaggc cgagatgaag aagatgtacg gcctgatcga gacctacaag ttgaacgggc 240
aattca 246

<210> 2416

<211> 247

<212> nucleic acid

<213> Glycine max

<400> 2416

ttcacagctg atctatttgc catgaaccac acagatttca ttattaccag taccttccag 60
gagattgctg gaagcaagga cactgttgga cagtatgagt ctacacagc ctttaccctt 120
cctggactct accgtgttgt gcacggcatt gatgtctttg atccaaaatt caacattgtc 180
tcccctggag ctgatcaaac catttacttc cccccaccg aaactagccg taggttgacc 240
tccttcc 247

<210> 2417

<211> 257

<212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (59)

<223>

<400> 2417

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gacactgttg gacagtatga gtctcacaca gcctttaccc ttcctggact ctaccgtgtt 120

gtgcacggca ttgatgtott tgatccaaaa ttcaacattg tctcccctgg agctgatcaa 180

accatttact tccccccac cgaaactagc cgtagttgac ctccttccac cccgaaatcg 240

aagaacttct ttacagc 257

<210> 2418

<211> 247

<212> nucleic acid

<213> Glycine max

<400> 2418

eggcactgat gtctttgatc caaaattcaa cattgtatcc cctggagctg atcaaaccat 60

ttacttcccc cccaccgaaa ctageccgtag gttgacctcc ttccaccccg aaatcgaaca 120

acttctttac agctctgtgg agaatgaaga acacatatgc gtgctgaagg accgcagcaa 180

gccgattatc ttcaccatgg caaggttgga ccgtgtgaac gacatcacag gactcgtgga 240

gtggtac 247

<210> 2419

<211> 267

<212> nucleic acid

<213> Glycine max

<400> 2419

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tcattctgtga cacaaggggt gcctttgtgc agcctgcagt ttatgaggcc tttgggttga 120

ctgtgggttga ggccatgact tgtgggttgc caacgtttgc cacatgcaat ggtggtcctg 180

ctgagatcat tgtgcatgga aaatctgggt accacattga tccttaccat ggtgaccatg 240

ctgctgagat ccttggtgag ttctttg 267

<210> 2420
 <211> 229
 <212> nucleic acid
 <213> Glycine max

<400> 2420
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 ctgacccttg cacccttgag actttccttg gaagaattcc tatggtcttc aatgttgtca 120
 ttctttctcc ccatgggttac ttgcccag ataatgtctt gggataccct gacactggtg 180
 gccaggttgt ttacatcttg gatcaagttc gtgctttgga gaacgagat 229

<210> 2421
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<400> 2421
 gtcaaaggac ttggaagaaa aggccgagat gaagaagatg tacggcctga tcgagaccta 60
 caagttgaac ggccaattca gatggatttc atcgagatg aaccgtgtga ggaatggaga 120
 gctctaccgc gtgatctgcg acaccagggg tgctttcgtg cagcctgctg tatacgagggc 180
 ttttggtttg acagtgggtg aggccatgac ttgcggcttg ccaagattcg ccacatgcaa 240
 tgtgggtcct gctgagatca ttgtg 265

<210> 2422
 <211> 250
 <212> nucleic acid
 <213> Glycine max

<400> 2422
 ggaagagaga taccacttct cttgccaatt cacagctgat ctatttgcca tgaaccacac 60
 agatttcatt atcaccagta ccttccagga gattgctgga agcaaggaca ctgttggaca 120
 gtacgaatct cacacagcct tcaccttcc tggactctac cgcgttgtgc atggtattga 180
 tgtctttgat ccaaaattca acattggctc ccctggagct gatcatacca tttacttccc 240
 ccacactgaa 250

<210> 2423
 <211> 237
 <212> nucleic acid
 <213> Glycine max

<400> 2423
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 tatcaccagt accttccagg agattgctgg aagcaaggac actggttgac agtatgagtc 120
 tcacacagcc ttacccttc ctggactcta ccgtgttggtg caccggcattg atgtctttga 180
 tccaaaattc aacattgtct ccctggagc tgatcaaacc atttacttcc ccccccac 237

<210> 2424
 <211> 282
 <212> nucleic acid
 <213> Glycine max

<400> 2424
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 agaacatcac aggactcgtg gactggcacg gtaagaacgc gaactgaggg agttgggtgaa 120
 ccttggtggtt gttgccggag acaggaggaa ggagtcgaag gacttgaag agaaggccga 180
 gatgaagaag atgtacggcc tgatcgagac ctacaagttg aacgggcaat tcagatggat 240
 ttcattctcag atgaaccgtg tgaggaacgg agagctgtac cg 282

<210> 2425
 <211> 313
 <212> nucleic acid
 <213> Glycine max

<400> 2425
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 cgaacggaga gctctaccgt gtcattctgtg acacaagggg tgcctttgtg cagcctgcag 120
 tttatgaggc ctttggttac actgtggttg aggccatgac ttgtgggttg ccaacgtttg 180
 ccacatgcaa tgggtgctct gctgagatca ttgtgcatgg aaaatctggt taccacattg 240
 atccttacca tggtgacct gctgctgaga tccttgttga gttctttgag aagagcaagg 300
 ctgatccatc tca 313

<210> 2426
 <211> 271
 <212> nucleic acid
 <213> Glycine max

<400> 2426
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 gcaaggcttg accgtgtgaa gaacatcacg gggcttgctg agtgggtacgg gaagaacgca 120
 cgcctccgag agttgggtgaa cctgggtggtg gtggctggag acaggaggaa ggagtcgaag 180
 gacttggaag agaaggccga gatgaagaag atgtatggcc tcacgagac ctacaagttg 240
 aacggccaat tcagatggat atcctctcag a 271

<210> 2427
 <211> 258
 <212> nucleic acid
 <213> Glycine max

<400> 2427
 aaaccattta cttccccccc accgaaacta gccgtagggt gacctccttc caccgccgaa 60
 tcgaagaact tctttacagc tctgtggaga atgaagaaca catatgcgtg ctgaaggacc 120
 gcagcaagcc gcttatcttc accatggcaa ggttggaccg tgtgaagaac atcacaggac 180
 tcgtggagtg gtacggtaag aacgcgaact cgaggaggtt ggtgaacctt gtggttggtg 240
 ccggagacag gaggaagg 258

<210> 2428
 <211> 263
 <212> nucleic acid
 <213> Glycine max

<400> 2428
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 gagctctacc gtgtcatctt cgacacaagg ggtgcctttg tgcagcctgc agtttatgag 120
 gcctttgggt tgactgtggt tgacgccatg acttgtgggt tgccaacgtt tgccacatgc 180
 aatggtgggt ctgctgagat cattgtgcat ggaaaatctg gttaccacat tgatccttac 240
 catggtgacc atgctgctga gat 263

<210> 2429
 <211> 252
 <212> nucleic acid
 <213> Glycine max

<400> 2429

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 tcctttacag ctcagtggag aatgaagaac acatatgtgt gctgaaggac cgcagcaagc 120
 caattatctt caccatggca aggttggatc gagtgaagaa catcacagga cttgtggagt 180
 ggtacggtaa gaacgcgaac tcgagggagc tgggtgaacct tgtggttggt gctggagaca 240
 ggaggaagga gt 252

<210> 2430
 <211> 234
 <212> nucleic acid
 <213> Glycine max

<400> 2430

gggaaagact ttgatgttga atgacagcct tcaaaaccca gatgcactcc aacatgttct 60
 gaggcaagct gaggagtatc tgggcacagt gcctcctgaa actccctact cagaatttga 120
 gcacaagttc caggagattg gtttggagag aggggtgcggt gacaacgcag agcgtgttct 180
 tgagtcaatt caacttctct tggatcttct tgaggccctt gacccttgca ccct 234

<210> 2431
 <211> 266
 <212> nucleic acid
 <213> Glycine max

<400> 2431

gtgacattct cagagttcct ttcagaacag aaaagggaat tgttcgcaaa tggatctcaa 60
 gattcgaagt ctggccatac ctagagactt aactgagga tgtcgccctt gaacttgcca 120
 aggagttgca agccaagcca gatctgattg ttggaaacta cagtgatgga aacattgttg 180
 cctctttgtt agcacataaa ttaggagtaa ctcagtgtac cattgctcat gctctagaaa 240
 agaccaagta ccctgagtct gacatt 266

<210> 2432
 <211> 276

<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (144)
<223>

<400> 2432

gootgagtct gacatttact ggaaaaaatt tgaagagaaa tatcatttct catgccaatt 60
tactgctgat ctttttgcaa tgaaccacac agactttatc atcaccagca ctttccaaga 120
gattgctgga agcaaggaca ctgntggaca gtatgagagt cacactgcct tcacccttcc 180
aggactttac cgtgttggtc acggtattga tccatttgat ccaaagttca acattgtctc 240
tcccgggtgca gacatgggta tataacttccc atacac 276

<210> 2433
<211> 268
<212> nucleic acid
<213> Glycine max

<400> 2433

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ggaacggaga gctctaccgt gtcattctgtg acacaagggg tgcctttgtg cagcctgcag 120
tttatgaggc ctttggggtg actgtgggtg aggccatgac gtgtggggtg ccaacgtttg 180
ccacatgcaa tgggtggtcct gctgagatca ttgtgcatgg aaaatctggt taccacattg 240
atccttacca tggtgaccat gctgctga 268

<210> 2434
<211> 279
<212> nucleic acid
<213> Glycine max

<400> 2434

gcgtattgaa ggaccgcaac aaaccaataa tcttcacat ggcaaggctt gaccgtgtga 60
agaacatcac ggggcttgct gactggctcg gaagaacgca cgcctccgcg agttggtgaa 120
cctggtggtg gtggctggag acaggaggaa ggcgtcgaag gacttggaa agaaggccga 180
gatgaagaag atgtatggcc tcatcgagac ctacaagttg aacggccaat tcagatggat 240

atcctctcag atgaaccgtg tgaggaacgg agagctcta 279

<210> 2435
 <211> 222
 <212> nucleic acid
 <213> Glycine max

<400> 2435

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 gcaacaagga ttggacattg ttcctcgtat tctcattatc acccgtcttc tccccgatgc 120
 agtaggaact acttgtggcc aacgtcttga gaagggtgtc ggaactgagc actcccacat 180
 tcttcgagtt cccttttagaa ctgagaaggg aattgttcgc aa 222

<210> 2436
 <211> 259
 <212> nucleic acid
 <213> Glycine max

<400> 2436

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 aaacattggt gcctctttgt tagcacataa attaggagta actcagtgtg ccattgctca 180
 tgctctagaa aagaccaagt accctgagtc tgacatttac tggaaaaaat ttgaagagaa 240
 atatcatttc tcatgccaa 259

<210> 2437
 <211> 251
 <212> nucleic acid
 <213> Glycine max

<400> 2437

gtccaaggac ttggaagaga aggccgagat gaagaagatg tatggcctca tcgagaccta 60
 caagttgaac ggccaattca gatggatctc ctctcagatg aaccgtgtga ggaacggaga 120
 gctctaccgt gtcattctgtg acacaagggg tgcctttgtg cagcctgcag tttatgaggc 180
 ctttgggttg actgtggttg aggccatgac ttgtgggtta ccaacatttg ccacatgcaa 240
 tgggtggtcct g 251

<210> 2438
 <211> 253
 <212> nucleic acid
 <213> Glycine max

 <400> 2438

 ggagagctgt accgtgtgat ctgcgacacc aatggagctt tcgtgcagcc ggctatatac 60
 gaggcttttg gcttgacact ggttgaagcc atgacttgta ggttgccaac attcgccaca 120
 tgcaatggtg gtcttctga gatcattgtg catggcaagt ctggcttcca cattgaccct 180
 taccatggtg accgtgtgtc ggatctccct gctgacttct ttgagaagtg caagcttgac 240
 ccaacccact ggg 253

<210> 2439
 <211> 229
 <212> nucleic acid
 <213> Glycine max

 <400> 2439

 cccatggtta ctttgcccaa gataatgtct tgggataccc tgacactggt ggccagggtg 60
 ttacatctt ggatcaagtt cgtgctttgg agaacgagat gctccatcgc attaagcaac 120
 aaggattgga cattgtacct cgtattctca ttatcaccgc tcttctcccc gatgcaatcg 180
 gaactacttg tggccaacgt cttgagaagg tgttcggaac cgagcactc 229

<210> 2440
 <211> 260
 <212> nucleic acid
 <213> Glycine max

 <400> 2440

 gccgagatga agaagatgta tggcctcatc gagacctaca agttgaacgg ccaattcaga 60
 tggatatcct ctcagatgaa ccgtgtgagg aacggagagc tctaccgtgt catctgtgac 120
 acaaggggtg cctttgtgca gcctgcagtt tatgaggcct ttgggttgac tgtggttgag 180
 gccatgactt gtgggttgcc aacgtttgcc acatgcaatg gtggctcctgc tgagatcatt 240
 gtgcatggaa aatctggtta 260

<210> 2441

1. The first step is to identify the problem or goal. This involves understanding the current situation and what needs to be achieved.

<400> 2441

<210>	2442
<211>	259
<212>	nucleic acid
<213>	Glycine max

<400> 2442

gcttctttac	agctcagtg	agaatgagga	acacatatgc	gtattgaagg	accgcaacaa	60
accaataatc	ttcaccatgg	caaggcttga	ccgtgtgaag	aacatcacgg	ggcttgtcga	120
gtggtacggg	aagaacgcac	gcctccgcga	gttggtgaac	ctggtggtgg	tggctggaga	180
caggaggaag	gagtcgaagg	acttggaaga	gaaggccgag	atgaagaaga	tgtatggcct	240
catcgagacc	tacaagttg					259

<210>	2443
<211>	244
<212>	nucleic acid
<213>	Glycine max

<400> 2443

854

ggtc

244

<210> 2444
<211> 220
<212> nucleic acid
<213> Glycine max

<400> 2444

ccccacact gaaaccagcc gtaggttgac atccttccac cctgaaatcg aagaactcct 60
ttacagctca gtggagaatg aagaacacat atgtgtgctg aaggaccgca gcaagccaat 120
tatcttcacc atggcaaggt tggatcgagt gaagaacatc acaggacttg tggagtggta 180
cggttaagacc gcgaactgga gggacctgga aaaccttggg 220

<210> 2445
<211> 248
<212> nucleic acid
<213> Glycine max

<400> 2445

caagtaccct gagtctgaca tttactggaa aaaatttgaa gagaaatatc atttctcatg 60
ccaatttact gctgatcttt ttgcaatgaa ccacacagac tttatcatca ccagcacctt 120
ccaagagatt gctggaagca aggacactgt tggacagtat gagagtcaca ctgccttcac 180
ccttccagga ctttaccgtg ttgttcacgg tattgatcca tttgatccaa agttcaacat 240
tgtctctc 248

<210> 2446
<211> 262
<212> nucleic acid
<213> Glycine max

<400> 2446

cacggggctt gtcgagtggc acgggaagaa cgcacgcctc cgcgagttgg tgaacctggt 60
ggcgggtggc ggagacagga ggaaggagtc gaaggacttg gaagagaagg ccgagatgaa 120
gaagatgtat ggcctcatcg agacctacaa gttgaacggc caattcagat ggatatacctc 180
tcagatgaac cgtgtgagga acggagagct ctaccgtgtc atctgtgaca caaggggtgc 240
tcctgtgcag cctgcagttt at 262

<210> 2447
 <211> 273
 <212> nucleic acid
 <213> Glycine max

<400> 2447
 gaacttgcca aggagttgca agccaagcca gatctgattg ttggaaacta caatgatgga 60
 aacattgttg cctctttgtt agcacataaa ttaggagtaa ctcaagtgtac cattgctcat 120
 gctctagaaa agaccaagta ccctgagtct gacatttact ggaaaaaatt tgaagagaaa 180
 tatcatttct catgccaatt tactgctgat ctttttgcaa tgaaccacac agactttatc 240
 atcaccagga ccttccaaga gattgctgga agc 273

<210> 2448
 <211> 290
 <212> nucleic acid
 <213> Glycine max

<220> unsure
 <221> (4), (28), (53), (66), (75), (77), (79), (92) ... (93), (106),
 <222> (126) ... (127), (153)
 <223> unsure at all n locations

<400> 2448
 taancagatt gatccttacc atggtganca tgctgctgag atccttggtg agntctttga 60
 gaagancaag gctgntnct ctcactggga cnnaatctcc cagggnggac tcaagcgtat 120
 tcatgnnaag tacacatggc aaatttactc ggncaggctc ttgacactca ctggtgtgta 180
 tggcttctgg aagcacgtga ccaatcttga acgccgtgag agcaaacgtt acctcgagat 240
 gttctatgct ctcaagtacc gcaaattggc tgagtctgtg ccccttgcta 290

<210> 2449
 <211> 257
 <212> nucleic acid
 <213> Glycine max

<400> 2449
 gaagaacgca cgctccgag agttggtgaa cctgggtggtg gtggctggag acaggaggaa 60
 ggagtcgaag gacttgggaag agaaggccga gatgaagaag atgtatggcc tcacgagac 120

ctacaagttg aacggccaat tcagatggat atcctctcag atgaaccgtg tgaggaacgg 180
agagctctac cgtgtcatct gtgacacaag ggggtgccttt gtgcagcctg cagtttatga 240
ggcctttggg ttgactg 257

<210> 2450
<211> 304
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (165), (169)
<223> unsure at all n locations

<400> 2450

aggtgaccat gctgctgaga tccttgttga gttctttgag aagagcaagg ctgatccatc 60
tcaactgggac aaaatctccc aggggtggact caagcgtatt catgagaagt acacatggca 120
aatttactcg gacaggctct tgacactcac tgggtgtgtat ggctncgana agcacgtgac 180
caatcttgaa cgccgtgaga gcaaacgtta cctcgagatg ttctatgctc tcaagtaccg 240
caaattggct gagtctgtgc cccttgctat tgaagagtaa attcatgttt gaagagaaca 300
tcaa 304

<210> 2451
<211> 248
<212> nucleic acid
<213> Glycine max

<400> 2451

agaaggccga gatgaagaag atgtatggcc tcatcgagac ctacaagttg aacggccaat 60
tcagatggat atcctctcag atgaaccgtg tgagaaacgg agagctctac cgtgtcatct 120
gtgacacaag ggggtgccttt gtgcagcctg cagtttatga ggcctttggg ttgactgtga 180
gataggccat gacttgtggg ttgccaacgt ttgccacatg caatgggtgg cctgctgaga 240
tcattgtg 248

<210> 2452
<211> 255
<212> nucleic acid

<213> Glycine max

<400> 2452

agaacatcac ggggcttgtc gagtggtagc ggaagaacgc acgcctccgc gagttggtga 60
acctgggtgtt ggtggctgga gacaggagga aggagtcgaa ggacttgga gagaaggccg 120
agatgaagaa gatgtatggc ctcatcgaga cctacaagtt gaacggccaa ttcagatgga 180
tattctctca gatgaaccgt gtgaggaacg gagagctcta ccgtgtcatc tgtgacacaa 240
ggggtgcctt tgtgc 255

<210> 2453

<211> 259

<212> nucleic acid

<213> Glycine max

<400> 2453

gaagaacatc acggggcttg tcgagtggta cgggaagaac gcacgcctcc gcgagttggt 60
gaacctggtg gtgggtggtg gagacaggag gaaggagtcg aaggacttgg aagagaaggc 120
cgagatgaag aagatgtatg gcctcatcga gacctacaag ttgaacggcc aattcagatg 180
gatattctct cagatgaacc gtgtgaggaa cggagagctc taccgtgtca tctgtgacac 240
aaggggtgcc tttgtgcag 259

<210> 2454

<211> 276

<212> nucleic acid

<213> Glycine max

<400> 2454

gctcgcagct ggctcatcgc agacctacaa gttgaacggc caattcagat ggatattctc 60
tcagatgaac cgtgtgagga acggagagct ctaccgtgtc atctgtgaca caaggggtgc 120
ctttgtgcag cctgcagttt atgaggcctt tgggttgact gtggttgagg ccatgacttg 180
tacggttgcc aacgtttgcc acatgcaatg gtggtcctgc tgacatcact gtgcatggaa 240
aatctggtta ccacattgat ccttaccatg gtgacc 276

<210> 2455

<211> 231

<212> nucleic acid

<400>	2458
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gggaattggtt cgcaaattgga tctcaagatt cgaagtctgg ccatacctag agacttacac 60
 tgaggatgtc gcccttgaac ttgccaagga gttgcaagcc aagccagatc tgattgttgg 120
 aaactacagt gatggaaaca ttgttgcttc tttgttagca cataaattag gagtaactca 180
 gtgtaccatt gctcatgctc tagaaaagac caagtaccct gagtctgaca ttact 236

<210> 2459
 <211> 254
 <212> nucleic acid
 <213> Glycine max

<400> 2459
 cccacactga aaccagccgt aggttgacat ccttccaccc tgaaatcgaa gaactccttt 60
 acagctcagt ggagaatgaa gaacacatat gtgtgctgaa ggaccgcagc aagccaatta 120
 tcttcaccat ggcaagggtg gatcgagtga agaacatcac aggacttgtg gagtgggtacg 180
 gtaagaacgc gaactcgagg gctgggtgaac cttgtggttg ttgctggaga caggaggaag 240
 gagtcaaagg actt 254

<210> 2460
 <211> 261
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (4), (42)... (45), (53)
 <223> unsure at all n locations

<400> 2460
 ccancaattc ccttctcagt tctaaaggga attgttcgtc annnngatct cangattcga 60
 agtctggcca tacttggaac cttacactga ggaacttgct catgagcttg ccaaagagtt 120
 gcaaggcaag ccagatctga ttgtcggaac ctacagtgat ggaaacattg ttgcctcttt 180
 gttggcacat aaattaggag tcatcagtgt accattgctc atgcacttga gaagaccaa 240
 taccocgaat ccgacattta t 261

<210> 2461
 <211> 277
 <212> nucleic acid
 <213> Glycine max

<400> 2461
catcaagaaa caaggccttg atatcacccc tcgtattctc attatcactc gtcttctccc 60
tgatggcagt aggaactacc tgtggccaac gtctagagag ggtatatgat actgaatatt 120
gtgacattct cagagttcct ttcagaacag aaaagggaat tgttcgcaaa tggatctcaa 180
gattcgaagt ctggccatac ctagagactt aactgagga tgcgcacctt gaacttgcca 240
aggagttgca agccaagcca gatctgattg ttggaaa 277

<210> 2462
<211> 247
<212> nucleic acid
<213> Glycine max

<400> 2462
ggctcgagcg gctcgagcga aactagccag aggttgacct ccttacaccc cgaaatcgaa 60
gaacttgttt acagctctgt ggagaatgaa gaacacatat gcgtgctgaa ggaccgcagc 120
aagccgatta tcttcacat ggcaagggtg gaccgtgtga agaacatcac aggactcgtg 180
gagtggtagc gtaagaacgc gaagctgagg gagttggtga accttggtggt tgttgccgga 240
gacagga 247

<210> 2463
<211> 250
<212> nucleic acid
<213> Glycine max

<400> 2463
cggtcgagg tttatgaggc ctttgggttg actgtggttg aggccatgac ttgtgggttg 60
ccaacgtttg ccacatgcaa tgggtggtcct gctgagatca ttgtgcatgg aaaatctggt 120
taccacattg atccttacca tggtgacct gctgctgaga tccttggtga gttctttgag 180
aagagcaagg ctgatccatc tactggggac aaaatctccc aggggtggact caagcgtatt 240
catgagaagt 250

<210> 2464
<211> 268
<212> nucleic acid
<213> Glycine max

<400> 2467
 caagaatgcg cgctccgcg agttggtaaa cctcgtggtg gtggccggag acaggaggaa 60
 ggagtccaag gacttgaag agaaggccga gatgaagaag atgtatggcc tcatcgagac 120
 ctacaagttg acggccaatt cagatggatc tcctctcaga tgaaccgtgt gaggaacgga 180
 gagctctacc gtgtcatctg tgacacaagg ggtgcctttg tgcagcctgc agtttatgag 240
 gcctttgggt tga 253

<210> 2468
 <211> 251
 <212> nucleic acid
 <213> Glycine max

<400> 2468
 tatcacttct catgccaatt tactgctgat ctttttgcaa tgaaccacac agactttatc 60
 atcaccagca ccttccaaga gattgctgga agcaaggaca ctggttgaca gtatgagagt 120
 cacactgcct tcacccttcc aggactctac cgtgttggtc acggtattga tccctttgat 180
 ccagagttca acatcgtctc tcccggtgcc gacatgagca tatacttccc atacactgaa 240
 actgagcgta g 251

<210> 2469
 <211> 258
 <212> nucleic acid
 <213> Glycine max

<400> 2469
 cggtctgaga cggtgcgag aagcgacaga agggcgacat tgaagagctt ctttacagct 60
 cagtggagaa tgaagaacac atatgtgtat tgaaggaccg caacaagccg atcatcttca 120
 ccatggcaag acttgaccgt gtgaagaaca tcacgggact tgtggagtgg tatggcaaga 180
 atgcgcgcct ccgcgagttg gtaaacctcg tggtggtggc cggagacagg aggaaggagt 240
 ccaagggact tggaagag 258

<210> 2470
 <211> 273
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (118)
 <223>

 <400> 2470

 attgatccct ttgatccaaa gttcaacatc gtctctcccg gtgccgacat gagcatatac 60
 ttcccataca ctgaaactga gcgtaggtta acagagttcc accccgacat tgaagcgnct 120
 ctttacagct cagtggagaa tgaagaacac atatgtgtat tgaaggaccg caacaagccg 180
 atcatcttca ccatggcaag acttgaccgt gtgaagaaca tcacgggact tgtggagtgg 240
 tatggcaaga atgcgcgcct ccgcgagttg gta 273

<210> 2471
 <211> 257
 <212> nucleic acid
 <213> Glycine max

 <400> 2471

 atgacttgtg ggttaccaac atttgccaca tgcaatggtg gtcctgctga gatcattgtg 60
 catggaaaat ctggttacca cattgaccct taccatggtg accgtgctgc tgagatcctt 120
 gttgagttct ttgaaaagag caaggctgac ccatctcact gggacaaaat ctcccagggg 180
 gtactcaagc gtattcatga gaagtacaca tggcaaattt actctgacag gctcttgaca 240
 ctcaactggtg tgtatgg 257

<210> 2472
 <211> 239
 <212> nucleic acid
 <213> Glycine max

 <400> 2472

 tggcaagaat gcgcgcctcc gcgagttggt aaacctcgtg gtggtggccg gagacaggag 60
 gaaggagtcc aaggacttgg aagagaaggc cgagatgaag aagatgtatg gcctcatcga 120
 gacctacaag ttgaacggcc aattcagatg gatctcctct cagatgaacc gtgtgaggaa 180
 cggagagctc taccgtgtca tctgtgacac aaggggtgcc tttgtgcagc ctgcagttt 239

<210> 2473

<211> 263
<212> nucleic acid
<213> Glycine max

<400> 2473

tgccaattta ctgctgatct ttttgcaatg aaccacacag actttatcat caccagcacc 60
ttccaagata ttgctggaag caaggacact gttggacagt atgagagtca cactgccttc 120
acccttccag gactctaccg tgttggtcac ggtattgatc cctttgatcc aaagttcaac 180
atcggtttctc gcggtgccga catgagcata tacttcccat aactgaaac tgttcgtagg 240
ttaacagagt tccacacaac ata 263

<210> 2474
<211> 230
<212> nucleic acid
<213> Glycine max

<400> 2474

ccgctcgagc ggctcgagca gtaccttcca ggagattgct ggaagcaagg aactggttg 60
acagtatgag tctcacacag cctttacccc tcttggaactc taccgtgttg tgcaaggcat 120
tgatgtcttt gatccaaaat tcaacattgt ctccccctgga gctgatcaaa ccatttactt 180
cccccccacc gaaactagcc gtaggttgac ctccctccac cccgaaatcg 230

<210> 2475
<211> 255
<212> nucleic acid
<213> Glycine max

<400> 2475

aatttactgc tgatcttttt gcaatgaacc acacagactt tatcatcacc agcaccttcc 60
aagagattgc tggactcaag gacactgttg gacagtatga gagtcacact gccttcaccc 120
ttccaggact ttaccgtggt gttcacggta ttgatccatt tgatccaaag ttcaacattg 180
tctctcccgg tgcagacatg ggtatatact tcccatcac tgaaactgag cgtaggttaa 240
cagaattcca ctctg 255

<210> 2476
<211> 276
<212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (18), (33), (44), (66) ... (67), (81) ... (82), (99), (101), (140),
(191), (203) ... (204), (249)

<223> unsure at all n locations

<400> 2476

ggagtatctg ggcacagngc ctctgaaac tcnctactgc agantttgag cacaagttcc 60

aggagnntgg tttggagaga nngtggggtg acaacgcgna ntgtccttga gtcaattcaa 120

cttctcttgg atcttcttgn ggccctgac ccgtgcaccc ttgagacttt ccttgggaaga 180

atccctatgg ngttcaatgt tgnnatcttt ctcccatgg ttactttgcc caagataatg 240

tcttgggana cctgacactg gtggccaggt tgttac 276

<210> 2477

<211> 251

<212> nucleic acid

<213> Glycine max

<400> 2477

gtgacactgc cgagcgtgtc ctcgagatga tccagcttct cctggacctt cttgaggcac 60

ctgacccttg caccctcgag acattccttg gaagagtccc tatggtcttc aatgttgta 120

tcctttctcc ccattggttac tttgccaag ataatgtctt gggataccct gacactggtg 180

gacaggttgt ttacatcttg gatcaagttc gtgccttgga gaatgagatg ctcaaccgca 240

tcaagaaaca a 251

<210> 2478

<211> 270

<212> nucleic acid

<213> Glycine max

<400> 2478

cggtgcagac atgggtatat acttcccata cactgaaact gagcgtaggt taacagaatt 60

ccactctgac attgaagagc ttctttacag ctcaagtggag aatgaggaac acatatgcgt 120

attgaaggac cgcaacaaac caataatctt caccatggca aggcttgacc gtgtgaagaa 180

catcacgggg attgtcgagt ggtacgggaa gaacgcacgc ctccgcgagt tggatgaacct 240

ggtggtggtg gctggagaca ggaggaagga

<210> 2479
 <211> 174
 <212> nucleic acid
 <213> Glycine max

<400> 2479
 gatcaaacca ttacttccc ccacactgaa accagccgta ggttgacatc cttccaccct 60
 gaaatcgaag aactccttta cagctcagtg gagaatgaag aacacatatg tgtgctgaag 120
 gaccgcagca agccaattat cttcaccatg gcaagggttg atcgagtga gaac 174

<210> 2480
 <211> 239
 <212> nucleic acid
 <213> Glycine max

<400> 2480
 ccatgctgct gagatccttg ttgagttctt tgagaagagc aaggctgac catctcactg 60
 ggacaaaatc tcccagggtg gactcaagcg tattcatgag aagtacacat ggcaaattta 120
 ctcggacagg ctcttgacac tcaactggtg gtatggcttc tggaaacacg tgaccaatct 180
 tgaacgccgt gagagcaaac gttacctoga gatgttctat gctctcaagt accgcaaat 239

<210> 2481
 <211> 237
 <212> nucleic acid
 <213> Glycine max

<400> 2481
 gaaccacaca gactttatca tcaccagcac cttccaagag attgctggaa gcaaggacac 60
 tgttgacag tatgagagtc aactgcctt cacccttcca ggactctacc gtgttggtca 120
 cggattgat ccctttgatc caaagttcaa catcgtctct cccggtgccg acatgagcat 180
 atacttcca tacactgaaa ctgagcgtag gtaacagag ttccaccccg acattga 237

<210> 2482
 <211> 255
 <212> nucleic acid
 <213> Glycine max

<400> 2482
 ggtaacaga gttccacccc gacattgaag ggcttcttta cagctcagtg gagaatgacg 60
 aacacatatg tgtattgaag gaccgcaaca agccgatcat cttcaccatg gcaagacttg 120
 accgtgtgaa gaacatcacg gcacttgtgg agtggatatgg caagaatgcg cgctccgcg 180
 agttggtaaa cctcgtcgtg gtggccggag acaggaggca ggagtccacg gacgtggaag 240
 agaaggccga gatga 255

<210> 2483
 <211> 264
 <212> nucleic acid
 <213> Glycine max

<400> 2483
 gttctttgag aagagcaagg ctgatccatc tcaactgggac aaaatctccc aggggtggact 60
 caagcgtatt catgagaagt acacatggca aatttactcg gacaggctct tgacactcac 120
 tgggtgtgat ggcttctgga agcacgtgac caatcttgaa cgccgtgaga gcaaacgtta 180
 cctcgagatg ttctatgctc tcaagtaccg caaattggct gagtctgtgc ccttgctatt 240
 gaagagaaat tcatgtttga agag 264

<210> 2484
 <211> 233
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (66)
 <223>

<400> 2484
 ctcgagccga atcggtcga gaacatcaca ggactcgtgg agtggcacgg taagaacgcg 60
 acctgnaggg agttggtgaa ccttgtggtt gttgccggag acaggaggaa ggagtcgaag 120
 gacttggaa agaggccga gatgaagaag atgtacggcc tgatcgagac ctacaagtgt 180
 aacgggcaat tcagatggat ttcattctcag atgaaccgtg tgaggaacgg aga 233

<210> 2485
 <211> 267

<212> nucleic acid

<213> Glycine max

<400> 2485

atgagatgct caaccgcac aagaaacaag gccttgatat caccctcgt attctcatta 60

tcactcgtct tctcgtgat gcagtaggaa ctacctgtgg ccaacgtcta gagaggggtat 120

atgatactgg ctattggaca ttctcagagt tcctttcaga acagaaaagg gaattgttcg 180

caaatggatc tcaagattcg aagtctggcc atacctagag acttacactg aggatgtcgg 240

ccttgaactt gcccaaggagt tgcaagc 267

<210> 2486

<211> 238

<212> nucleic acid

<213> Glycine max

<400> 2486

ccgcaacaaa ccaataatct tcaccatggc aaggcttgac cgtgtgaaga acatcacggg 60

gcttgtcgag tggtagggga agcacgcacg cctccgcgag ttggtgaacc tgggtggtggt 120

ggctggagac aggaggaagg agtcgaagga cttggaagag aaggccgaga tgaagaagat 180

gtatggcctc atcgagacct acaagttgaa cggccaattc agatggatat cctctcag 238

<210> 2487

<211> 259

<212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (22), (30) ... (31), (44), (46), (94)

<223> unsure at all n locations

<400> 2487

gttaacagag ttccaccccg ancattgaan ncgttcttta cagntnagtg gagaatgaag 60

aacacatatg tgtattgaag gaccgcaaac aagncgatca tcttcacat ggcaagactt 120

gaccgtgtga agaacatcac gggacttggt gagtggtatg gcaagaatgc gcgcctccgc 180

gagttggtaa acctcgtggt ggtggccgga gacaggagga aggagtccaa ggacttggaa 240

gagaaggccg agatgaaga 259

[illegible]

cctcgacgcc gagcgtgtcc tcgagatgat ccagcttctc ttggaccttc ttgaggcaac 60
cgaccctacc accctcgaga acttccttgg aagagttcct atggtcttca atgttgttat 120
cctttctccc catggttact ttgcccaaga taatgtcttg gggtagcctg acactgggtgg 180
acaggttggt tacatcttgg atcaagttcg tgccctggag aatgagatgc 230

<400> 2489

gttcttttgaa aagagcaagg ctgacccatc tcaactgggac aaaatctccc aggggtggact 60
caagcgtatt catgagaagt acacatggca aatttactct gacaggctct tgacactcac 120
tggtgtgtat ggcttctgga agcatgtgac caatcttgaa cgccgtgaga gcaaacgtta 180
ccttgagatg ttctatgctc tcaagtaccg caaattgggt gagtctgtg 229

<400> 2490

tattactcgt	cttctccctg	atgcagtagg	aactacctgt	ggccaacgtc	tagagagggt	60
atatcatact	gaatattgtg	acattctccg	agttcctttc	agaaccgaaa	acggaattgt	120
tcgcaaattg	atctcaacat	tcgaagtctg	gccataccta	gagacttaca	ctgagggatgt	180
tgcccttgaa	cttgccaagg	agttgcaagc	caagccagat	ctgatcgttg	gaaactacag	240
tgatggaaaac	attgtttg					257

870

<213> Glycine max

<400> 2491

acagacttta tcataccag caccttcaa gagattgctg gaagcaagga cactgttga 60
cagtatgaga gtcacactgc cttcaccctt ccaggacttt accctgttgt tcacggtatt 120
gatccatttg atccaaagtt caacattgtc tctcccgtg cagacatggg catatacctc 180
ccatacactg aaactgagcg taggttaaca gaattccact ctgacatcga agagcttctt 240
tacagctcag 250

<210> 2492

<211> 273

<212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (52), (91)

<223> unsure at all n locations

<400> 2492

gccaacgttt gccacatgca atggtggtcc tgctgagatc attgtgcatg gnaaatctgg 60
ttaccacatt gatccttaac atggtgacat nctgctgaga tccttgttga gttctttgag 120
aagagcaagg ctgatccatc ctactggga caaaatctcc cagggtggac tcaagcgtat 180
tcatgagaag tacacatggc aaatttactc ggacaggctc ttgacactca ctggtgtgta 240
tggtcttga agcacgtgac caatctgaac gcc 273

<210> 2493

<211> 245

<212> nucleic acid

<213> Glycine max

<400> 2493

cggtctgagg tttatgaggc ctttgggttg actgtggttg aggccatgac ttgtgggttg 60
ccaacgtttg ccacatgcaa tgggtggtcct gctgagatca ttgtgcatgg aaaatctggt 120
taccacattg atccttacca tggtgaccat gctgctgaga tccttgttga gttctttgag 180
aagagcaagg ctgatccatc tctactgggac aaaatctccc aggggtggact caagcgtatt 240
catga 245

<210> 2494
 <211> 252
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (23), (36) ... (37), (235)
 <223> unsure at all n locations

<400> 2494
 taacaagttg aacggccaat acngatggat atcctnncag atgaaccgtg tgaggaacgg 60
 agagctctac cgtgtcatct gtgacacaag gggcgccttt gtgcagcctg cagtttatga 120
 ggcctttggg ttgactgtgg ttgaggccat gacttgtggg ttgccaacgt ttgccacatg 180
 caatggtggt cctgctgaga tcatgtgcag gaaaatctgg ttaccacatg atcctacca 240
 ggtgaccagc tg 252

<210> 2495
 <211> 261
 <212> nucleic acid
 <213> Glycine max

<400> 2495
 acaggactcg tggagtggta cggtaagaac gcgaactcga gggagtgtgtg gaaccttgtg 60
 gttgttgccg gagacaggag gaaggagtcg aaggacttgg aagagaaggc cgagatgaag 120
 aagatgtacg gcctgatcga gacctacaag ttgaacgggc aattcagatg gatttcatct 180
 cagatgaacc gtgtgaggaa cggagagctg taccgtgtga tctgcgacac caagggagct 240
 ttcgtgcagc cggtatata c 261

<210> 2496
 <211> 246
 <212> nucleic acid
 <213> Glycine max

<400> 2496
 caaagttcaa cattgtctct cccggtgcag acatgggcat atacttccca tacactgaaa 60
 ctgagcgtag gttaacagaa ttccactctg acatcgaaac acttctttac agctcagtgg 120

cgcacgcctc cgcgagttgg tgaacctggt ggtggtggct ggagacagga ggaaggagtc 240
gaaggacttg gaagaga 257

<210> 2503
<211> 175
<212> nucleic acid
<213> Glycine max

<400> 2503

caacttctct tggatcttct tgaggcccct gacccttgca cccttgagac tttccttgga 60
agaattccta tgggtcttcaa tggtgtcatt ctttctcccc atggttactt tgcccaagat 120
tatgtcttgg gataccctga cactggtggc caggttgttt acatcttgga tcaag 175

<210> 2504
<211> 189
<212> nucleic acid
<213> Glycine max

<400> 2504

gggaattggt cgcaaattgga tctcaagatt cgaagtctgg ccatacctag agacttacac 60
tgaggatgtc gccctggaac ttgccaagga gttgcaagcc aagctagatc tgattgttgg 120
aaactacagt gatggaaaca ttgttgctc tttgttagca cataaattag gagtaactca 180
gtgtacaat 189

<210> 2505
<211> 216
<212> nucleic acid
<213> Glycine max

<400> 2505

gacatcgaag agcttcttta cagctcagtg gagaatgagg aacacatatg cgtattgaag 60
gaccgcaaca aaccaataat cttcaccatg gcaagggtga ccgtgtgaag aacatcacgg 120
ggcttgctga gtggtacggg aagaaacgaa ggcttcgcga gttggtgaac tgggtggtgg 180
ggctgaagac aggaggaagg attcgaggct ttgaaa 216

<210> 2506
<211> 246

<212> nucleic acid
<213> Glycine max

<400> 2506

ctcgagccga atcggtctga gcggtctgag cggctcgaga tgaagcacac atatgtgtat 60
tgaaggaccg caacaagccg aacatcttca acatggcaag acttgaccgt gtgaagaaca 120
tcacgggact tgtggagtgg tatggcaaga atgcgcgcct ccgcgagttg gtaaacctcg 180
tggtggtgga cggagacagg aggaaggagt ccaaggacgt tgaagagaag gccgagatga 240
agaaga 246

<210> 2507
<211> 239
<212> nucleic acid
<213> Glycine max

<400> 2507

tgaagaagat gtacggcctg atcgagacct acaagttgaa cggccaattc agatggattt 60
catcgcagat gaaccgtgtg aggaatggag agctctaccg cgtgatctgc gacaccaggg 120
gtgctttcgt gcagcctgct gtatacgagg cttttggttt gacagtgggtt gaggccatga 180
cttgcggtt gccaacattc gccacatgca atggtggtcc tgctgagatc attgtgcac 239

<210> 2508
<211> 269
<212> nucleic acid
<213> Glycine max

<400> 2508

gggtggactc aagcgtattc atgagaagta cacatggcaa atttactcgg acaggctctt 60
gacactcact ggtgtgtatg gcttctggaa gcacgtgacc aatcttgaac gccgtgagat 120
gaaacgttac ctcgagatgt tctatgctct caagtaccgc aaattggctg agtctgtgcc 180
ccttgctatt gacgagtaaa ttcattgttg aagagaacat caatggcgaa accggctttt 240
ggtcgtttga agtcttatgg agctttcat 269

<210> 2509
<211> 184
<212> nucleic acid
<213> Glycine max

acaaaccata atcttcacca tggcaatgct tgacgtgttg aagaacatca cggggcttgt 180
cgagtgggtac ggggaagaacg cacgcctccg cgagttgngt gaactggtgg tgggtggctgg 240
agac 244

<210> 2518
<211> 260
<212> nucleic acid
<213> Glycine max

<400> 2518

ccggtgcaga catgggcata tacttcccat aactgaaac tgagcgtagg ttaacagaat 60
tccactctga catcgaacta cttctttaca gtcagtgga gaatgaggaa cacatatgcg 120
tattgaagga ccgcaacaaa ccaataatct tcacatggc aaggcttgac cgttgtgaag 180
aacatcacgg ggcttgctga gtggtacggg aagaacgcac gcctccgcga gttggtgaac 240
ctggtggtgg tagctggaga 260

<210> 2519
<211> 177
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (129), (159), (165), (167)...(168), (170), (176)
<223> unsure at all n locations

<400> 2519

tctaccgtgt catctgtgac acaaggggtg cctttgtgca gcctgcagtt tatgaggcct 60
ttgggttgac tgtggttgag gccatgactt gtgggttacc aacatttgcc acatgcaatg 120
gtggtcctnc tgagatcatt gtgcatggaa aatctggtna ccacntnnn cccttnt 177

<210> 2520
<211> 244
<212> nucleic acid
<213> Glycine max

<400> 2520

atagagaggg tatactgata ctgaatattg tgacattctc agagttcctt tcagaacaga 60
aaaggaatt gttcgcaa atggatctcaag attcgaagtc tggccatacc tagagactta 120

cactgaggat gtcgcccttg aacttgtcaa ggagttgaag ccaagtcaga tctgattggt 180
 ggaaactaca gtgatggaaa cattgttgcc tctttgtag cacataaatt aggagtcact 240
 cagt 244

<210> 2521
 <211> 259
 <212> nucleic acid
 <213> Glycine max

<400> 2521

gtaaatgtcg gattcggggg atttgggtctt ctcaagtgc tgagcaatgg tacactgagt 60
 gactcctaatt ttatgtgcc acaaagaggc aacaatgttt ccatcactgt agtttccgac 120
 aatcagatct cattatcacc agtaccttcc aggagattgc tggaagcaag gacactgttg 180
 gacagtatga ctctcacaca gccctttacc ttcttggtact ctaccgtgtt gtgcacggca 240
 ttgatgtctt tgatccaaa 259

<210> 2522
 <211> 239
 <212> nucleic acid
 <213> Glycine max

<400> 2522

cggacaggct cttgacactc actggtgtgt atggcttctg gaagcacgtg accaatcttg 60
 aacgccgtga gagcaaactg tacctcgaga tgttctatgc tctcaagtac cgcaaattgg 120
 ctgagtctgt gcccttctgt attgaagagt aaattcatgt ttgaagagaa catcaatgga 180
 gaaaccggct tttgggtcgt tgaagtctta tggagcttct ataaataacg ccattgatt 239

<210> 2523
 <211> 235
 <212> nucleic acid
 <213> Glycine max

<400> 2523

cggacaggct cttgacactc actggtgtgt atggcttctg gaagcacgtg accaatcttg 60
 aacgccgtga gagcaaactg tacctcgaga tgttctatgc tctcaagtac cgcaaattgg 120
 ctgagtctgt gcccttctgt attgaagagt aaattcatgt ttgaagagaa catcaatgga 180

gaaaccggct tttggtcggt tgaagtctta tggagctttc ataaataacg ccatt 235

<210> 2524
<211> 143
<212> nucleic acid
<213> Glycine max

<400> 2524

ctcgagccgc accagtacct tccaggagat tgctggaagc aaggacactg ttggacagta 60

tgcgtctcac acagccttta ccttctctgg actctaccgt gttgtgcacg gcattgatgt 120

ctttgatcca aaattccaca ttg 143

<210> 2525
<211> 142
<212> nucleic acid
<213> Glycine max

<400> 2525

gtcggaaact acagtgatgg aaacattggt gcctctttgt tggcacataa attaggagtc 60

actcagtgtg ccattgctca tgcacttgag aagagcgaat accccgaatc cgacatgtac 120

tggacaagat tgggagagag gt 142

<210> 2526
<211> 254
<212> nucleic acid
<213> Glycine max

<400> 2526

ctcactggtg tgtatggctt ctggaagcac gtgaccaatc ttgaacgccg tgagagcaaa 60

cgttacctcg agatgttcta tgctctcaag taccgcaa at tggctgagtc tgtgcccctt 120

gctattgaag agtaaattca tgtttgaaga gaacatcaat ggagaaaccg gcttttggtc 180

gtttgaagtc ttatggagct ttcataaata acgccattga ttttgattgt gatcagcttt 240

tggatttaaa gagt 254

<210> 2527
<211> 131
<212> nucleic acid
<213> Glycine max

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<220>
<221>      unsure
<222>      (19) , (28) , (46) , (64) ... (66) , (85) , (87) , (89) , (94) , (106) ,
            (118) ... (121)
<223>      unsure at all n locations

<400>      2527

cttgtggttg ttgccggana caggagtnag gagtcgaagg acttgnaaga gaaggccgag   60
atgnnnaaga tgtacggcct gatcnananc tacnagttga acgggnaatt cagatggnnn  120
ncatctcaga t                                                         131

<210>      2528
<211>      161
<212>      nucleic acid
<213>      Glycine max

<400>      2528

tatgagagtc aactgcctt cacccttcca ggactctacc gtgttggttca cggtattgat   60
ccctttgatc caaagttcaa catcgtctct cccggtgccg acatgagcat atacttccca  120
tacactgaaa ctgaacgtag gttaacagag ttccacacaa c                       161

<210>      2529
<211>      152
<212>      nucleic acid
<213>      Glycine max

<400>      2529

ctggactcta ccgcgttggt catggtattg atgtctttga tccaaaattc aacattgtct   60
cccctggagc tgatcaaacc atttacttcc cccacactga aaccagccgt aggttgacat  120
ccttccaccc tgaaatcgaa gaactccttt ac                               152

<210>      2530
<211>      232
<212>      nucleic acid
<213>      Glycine max

<400>      2530

ctgaaactga gcgtagggta acagaattcc actctgagat cgaagcgctt ctttacagct   60
cagtggagaa tgaggaacac atatgcgtat tgaaggaccg gaacaaacga atatcttcac  120

```

catggcaagg cttgaccgtg tgaagaacat cacggggcctt gtcgagtggg acgggaagaa 180
cgcaagcctc cgcgagttgg tgaacctggg ggtgggtggct ggagacagga gg 232

<210> 2531
<211> 244
<212> nucleic acid
<213> Glycine max

<400> 2531

ttcgacacgc acggccaggc tcttgacact caccggtgtg tatggcacct ggaagcccgt 60
gaccaatcgc gaacgccgtg agagcaaacg ctacgccgag atgttccaag ctactcaagt 120
accgcaaatt ggctgagtct gtgccccttg ctactgaaga gtaacttcat gtttgaagag 180
aacatcaatg gagacaccgg cttttggtcg tttgaagtct tatggagctt tcataaataa 240
cgcc 244

<210> 2532
<211> 279
<212> nucleic acid
<213> Glycine max

<400> 2532

attcttgagt tcatggaagg gaaaccagat cttgttattg gaaattacac tgatggaaat 60
ttggtagcat cactaatggc tagaaaactt gggataactc agggaaactat agcacatgct 120
ttagagaaga ccaagtatga agactcagat gtcaagtgga aagagttgga cccaagtac 180
cacttctcgt gtcaattcat ggcggataga gtggcaatga atgcatctga tttcatcata 240
accagcacat accacgaatg tcgtggaagc aaagataga 279

<210> 2533
<211> 244
<212> nucleic acid
<213> Glycine max

<400> 2533

gttcatggaa gggaaaccag atctagttat tggaaattac actgatggaa atttggtagc 60
atcactaatg gctagaaaac ttgggataac tcagggaact atagcacatg ctttagagaa 120
gaccaagtat gaagactcag atgtcaagtg gaaagagttg gacccaagt accacttctc 180

gtgtcaattc atggcggata cagtggcaat gaatgcatct gatttcatca taaccagcac 240
atac 244

<210> 2534
<211> 262
<212> nucleic acid
<213> Glycine max

<400> 2534

gccgtgagag cgcgcgctat ctcgagatgt tctatgctct caagtaccgc aaattggctg 60
agtctgtgcc ccttgctgct gagtaaactg aggataaaga gttggataaa gaaatggagg 120
aaccggcttt ttctttctca tttggagttt gtcgcacttg agttttataa ataatgtccg 180
tgattttagt tttgtgatta agctttcgat aagaggagag aaagagaagg aaaaaaagt 240
tgcttttttt tttggtggtt gc 262

<210> 2535
<211> 266
<212> nucleic acid
<213> Glycine max

<400> 2535

tcgagatggt ctatgctctc aagtaccgca aattggctga gtctgtgccc cttgctgctg 60
agtaaactga ggataaagag ttggataaag aaatggagga accggctttt ttctttctcat 120
ttggagtttg tcgcacttga gttttataaa taatgtccgt gatttttagtt ttgtgattaa 180
gctttcgata agaggagaga aagagaagga aaaaaaagt tgcttttttt tttgttggtg 240
catgattggg acttgattgg aaaagc 266

<210> 2536
<211> 241
<212> nucleic acid
<213> Glycine max

<400> 2536

gttggataaa gaaatggagg aaccggcttt ttctttctca tttggagttt gtcgcacttg 60
agttttataa ataatgtccg tgattttagt tttgtgatta agctttcgat aagaggagag 120
aaagagaagg aaaaaaaaag ttgctttttt tttgttggtt gcatgatttg gatcttgatt 180

ggaaaagctt cgaattgggg tagttttacc cagcaattca attttaagcc gtgccttctt 240
241

<210>	2537
<211>	274
<212>	nucleic acid
<213>	Glycine max

```

<400>          2537
ctctcaagta cgcgaaattg gctgagtcctg tgcccccttgc tgctgagtaa actgaggata 60
aagagttgga taaagaaatg gaggaaccgg ctttttcttt ctcatttgga gtttgtcgca 120
cttgagtttt ataaataatg tccgtgattt tagttttgtg attaagcttt cgataagagg 180
agagaaagag aaggaaaaaa aaagttgctt ttttttttgt tgttgcatga tttggatcct 240
gattggaaaa gcttcgaatt ggggtagttt tacc 274

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<400> 2538

<400>	2538	
atttttacct	tgaaatatgt	tgtcattgaa cttgctaatag tatcttgta ttgtttttac 60
cttttaggctg	agtctgtgcc	ccttgctgct gagtaaactg aggataaaga gttggataaa 120
gaaatggagg	aaccggcttt	ttcttttctca tttggagttt gtcgcacttg agttttataa 180
ataatgtccg	tgattttagt	tttgtgatta agcttttcgat aagaggagag aaagagaagg 240
aaaaaaaaag	ttgcttttgt	ttttgttggt gcatg 275

<400> 2539

886

cctgatgatt ttaattttgt gattaagctt tcgataagag acagagagag aaaaaaaaaa 240
256

aaaaaaaaag gggggg

<210> 2540
<211> 259
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (2)
<223>

<400> 2540
cntgtgtcta accttgaccg ccgtgagagc cgccgctatc tcgagatggt ctatgctctc 60
aagtaccgca aattggccga gtctgtgccc cttgctgttg agtaaaactga ggatgaagag 120
ttggataaag aaatggagga accggctttt tgtttctcat ttggagtttg tcttacttga 180
gttctataaa taatatgtcc ctgatgattt taattttgtg attaagcttt cgataagaga 240
cagagagaga aaaaaaagg 259

<210> 2541
<211> 250
<212> nucleic acid
<213> Glycine max

<400> 2541
gccgctatct cgagatgttc tatgctctca agtaccgcaa attggccgag tctgtgcccc 60
ttgctgttga gtaaactgag gatgaagagt tggataaaga aatggaggaa ccggcttttt 120
gtttctcatt tggagtttgt cttacttgag ttctataaat aatatgtccc tgatgatttt 180
aattttgtga ttaagctttc gataagagac agagagagaa aaaaaaggaa aaaaaaaaaa 240
aagcctttta 250

<210> 2542
<211> 189
<212> nucleic acid
<213> Glycine max

<400> 2542

gtgagagccg cgcctatctc gagatgttct atgctctcaa gtaccgcaaa ttggccgagt 60
 ctgtgcccct tgctgttgag taaactgagg atgaagagtt ggataaagaa atggaggaac 120
 cggctttttg tttctcattt ggagtttgct ttacttgagt tctataaata atatgtccct 180
 gatgatttt 189

<210> 2543
 <211> 229
 <212> nucleic acid
 <213> Glycine max

<400> 2543

gccgtgagag ccgcgcctat ctcgagatgt tctatgctct caagtaccgc aaattggccg 60
 agtctgtgcc ccttgctggt gagtaaactg aggatgaaga gttggataaa gaaatggagg 120
 aaccggcttt ttgtttctcat ttggagtttg tcttacttga gttctataaa taatatgtcc 180
 ctgatgattt taattttgtg attaagcttt cgataagaga cagagagag 229

<210> 2544
 <211> 223
 <212> nucleic acid
 <213> Glycine max

<400> 2544

ctttaggccg agtctgtgcc ccttgctggt gagtaaactg aggatgaaga gttggataaa 60
 gaaatggagg aaccggcttt ttgtttctca tttggagttt gtcttacttg agttctataa 120
 ataatatgtc cctgatgatt ttaattttgt gattaagctt tcgataagag acagagagag 180
 aaaaaaaagg aaaaaaaaaa agccctttta ctttttgtct ttt 223

<210> 2545
 <211> 282
 <212> nucleic acid
 <213> Glycine max

<400> 2545

ctcgagccgc aagacctggt gtgtgggagt acctgagagt gaatgtgcac gctcttggtg 60
 ttgaggagtt gcaacctgct gagtacctgc acttcaagga agaacttggt gacggaagtt 120
 ctaatggcaa ctttgtgctt gagttggact ttgaaccatt caatgcagcc ttcccccgcc 180

<210> 2549
 <211> 333
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (87)...(88)
 <223> unsure at all n locations

<400> 2549

ctttacaccc cectctctat tttgcgttca ttctgttttc ttgaagtctt tccctagcca 60
 atggccactg atcgtttgac ccgggtnnca cagtctccgt gagaggcttg atgaaaccct 120
 cactgccaac gggaacgaaa ttttggccct tctgtcaagg atcgagctaa gggcaagggg 180
 atcctgcaac accaccaggt cattgctgag tttgaggaaa tccctgagga gaacaggcag 240
 aagcttactg atggtgcctt tggagaagtc ttgagatcta cacaggaagc catagttttg 300
 ccaccatggg ttgctctggc tgttcgtcca agc 333

<210> 2550
 <211> 291
 <212> nucleic acid
 <213> Glycine max

<400> 2550

ccccctctct tttttgcgtt cattctgttt tctgatgaa gtctttccct agccaatggc 60
 caccgatcgt ttgacccggg ttcacagtct ccgtgagagg cttgatgaaa ccctcactgc 120
 caacaggaat gaaattttgg cccttctgtc aaggatcgaa gccaagggca agggcatcct 180
 gcaacaccac caggtcattg ctgagtttga ggaaatccct gaggagaaca gacagaagct 240
 cactgatggt gcctttggag aagtcttgag atctacacag gaagccatag t 291

<210> 2551
 <211> 298
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (31), (59), (63)...(64), (73)
 <223> unsure at all n locations

<400> 2551
 cggttcattct gttttcagtt gaagtctttc nctagccaat ggccactgat cgtttgacnc 60
 gtnntcacag tcnccgtgag aggcttgatg aaaccctcac tgccaacagg aacgaaattt 120
 tggcccttct gtcaaggatc gaagctaagg gcaaggggat cctgcaacac caccagggtca 180
 ttgctgagtt tgaggaaatc cctgaggaga acaggcagaa gcttactgat ggtgcctttg 240
 gagaagtctt gagatctaca caggaagcca tagttttgcc accatgggtt gctctggc 298

<210> 2552
 <211> 262
 <212> nucleic acid
 <213> Glycine max

<400> 2552
 ttttctggt gaagtctttc cctagccaat ggccaccgat cgtttgaccc gggttcacag 60
 tctccgtgag aggcttgatg aaaccctcac tgccaacagg aatgaaattt tggcccttct 120
 gtcaaggatc gaagccaagg gcaagggcat cctgcaacac caccagggtca ttgctgagtt 180
 tgaggaaatc cctgaggaga acagacagaa gctcactgat ggtgcctttg gagaagtctt 240
 gagatctaca caggaagcca ta 262

<210> 2553
 <211> 291
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (168)
 <223>

<400> 2553
 cccctctcta ttttgcgttc attctgtttt ccagttgaag tctttcccta gccaatggcc 60
 actgatcggt tgaccgggt tcacagtctc cgtgagaggc ttgatgaaac cctcactgcc 120
 aacaggaacg aaattttggc ccttctgtca aggatcgaag ctaagtanca aggggatcct 180
 gcaacaccac caggtcattg ctgagtttga ggaaatccct gaggagaaca ggcagaagct 240
 tactgatggt gcctttggag aagtcttgag atctacacag gaagccatag t 291

<210> 2554
 <211> 247
 <212> nucleic acid
 <213> Glycine max

<400> 2554
 ctcaactgcca acaggaatga aattttggcc cttctgtcaa ggatcgaagc caagggcaag 60
 ggcactctgc aacaccacca ggtcattgct gagtttgagg aaatccctga ggagaacaga 120
 cagaagctca ctgatgggtgc ctttggagaa gtcttgagat ctacacagga agccatagtt 180
 ttgccaccat gggttgctct ggctgttcgt ccaagacctg gtgtgtggga gtacctgaga 240
 gtgaatg 247

<210> 2555
 <211> 268
 <212> nucleic acid
 <213> Glycine max

<400> 2555
 tctttatacc cccctctct tttttgcgtt cattctgttt tcctgttgaa gtctttccct 60
 agccaatggc caccgatcgt ttgaccggg ttcacagtct ccgtgagagg cttgatgaaa 120
 ccctcactgc caacaggaat gaaattttgg cacttctgtc aaggatcgaa gccaagggca 180
 agggcatcct gcaacaccac caggtcattg ctgagtttga ggaaatccct gaggagaaca 240
 gacagaagct cactgatggg gcctttgg 268

<210> 2556
 <211> 260
 <212> nucleic acid
 <213> Glycine max

<400> 2556
 tctctttata cccccctct cttttttgcg ttcattctgt tttctgttg aagtctttcc 60
 ctagccaatg gccaccgatc gtttgaccgg ggttcacagt ctccgtgaga ggcttgatga 120
 aaccctcact gccaacagga atgaaatttt ggcccttctg tcaaggatcg aagccaaggg 180
 caagggcatc ctgcaacacc accaggtcat tgctgagttt gaggaaatcc ctgaggagaa 240
 cagacagaag ctcaactgatg 260

<210> 2557
 <211> 261
 <212> nucleic acid
 <213> Glycine max

<400> 2557
 cccccctctc ttttttgcgt tcattctgtt ttctgttga agtctttccc tagccaatgg 60
 ccaccgatcg ttgaccgg gttcacagtc tccgtgagag gctggatgaa accctcactg 120
 ccaacaggaa tgaaattttg gcccttctgt caaggatcga agccaagggc aagggcatcc 180
 tgcaacacca ccaggtcatt gctgagtttg aggaaatccc tgaggagaac agacagaagc 240
 tcactgatgg tgcctttgga g 261

<210> 2558
 <211> 254
 <212> nucleic acid
 <213> Glycine max

<400> 2558
 ctttataccc cccctctctt ttttgcgttc attctgtttt cctgatgaag tctttcccta 60
 gccaatggcc accgatcgtt tgaccgggt tcacagtctc cgtgagaggc ttgatgaaac 120
 cctcactgcc aacaggaatg aaattttggc ccttctgtca aggatcgaag ccaagggcaa 180
 gggcactctg caacaccacc aggtcattgc tgagtttgag gaaatccctg aggagaacag 240
 acagaagctc actg 254

<210> 2559
 <211> 243
 <212> nucleic acid
 <213> Glycine max

<400> 2559
 gcgttcattc tgttttcctg ttgaagtctt tccgtagcca atggccaccg atcgtttgac 60
 ccgggttcac agtctccgtg agaggcttga tgaaaccctc actgccaaca ggaatgaaat 120
 tttggccctt ctgtcaagga tcgaagccaa gggcaagggc atcctgcaac accaccaggt 180
 cattgctgag tttagggaaa tccctgagga gaacagacag aagctcactg atggtgcctt 240
 tgg 243

<210> 2560
 <211> 271
 <212> nucleic acid
 <213> Glycine max

<400> 2560
 ctttacaccc ccctctctat tttgcgttca ttctgttttc cagttgaagt ctttccttag 60
 ccaatggcca ctgategttt gacccgggtt cacagtctcc gtgagaggct tgatgaaacc 120
 ctcaactgcc acaggaacga aattttggcc cttctgtcaa ggatcgaagc taagggaag 180
 gggatcctgc aacaccacca ggtcattgct gagtttgagg aaatccctga ggagaacagg 240
 cagaagctta ctgatggtgc ctttgagaa g 271

<210> 2561
 <211> 255
 <212> nucleic acid
 <213> Glycine max

<400> 2561
 ctctattttg cgttcattct gttttccagt tgaagtcttt ccatagccaa tggccactga 60
 tcgtttgacc cgggttcaca gtctccgtga gaggttgat gaaaccctca ctgccaacag 120
 gaacgaaatt ttggcccttc tgtcaaggat cgaagctaag ggcaagggga tcctgcaaca 180
 ccagcaggtc attgctgagt ttgaggaaat ccctgaggag aacaggcaga agcttactga 240
 tggcgcttt ggaga 255

<210> 2562
 <211> 233
 <212> nucleic acid
 <213> Glycine max

<400> 2562
 ttttgcgttc attctgtttt cctgttgaag tctttcccta gccaatggcc accgatcgtt 60
 tgacccgggt tcacagtctc cgtgagaggc ttgatgaaac ctcactgcc aacaggaatg 120
 aaattttggc ctttctgtca aggatcgaag ccaagggcaa gggcatcctg caacaccacc 180
 aggtcattgc tgagtttgag gaaatccctg aggagaacag acagaagctc act 233

<210> 2563

<211> 262
 <212> nucleic acid
 <213> Glycine max

 <400> 2563

 gttcattctg ttttcttgaa gtctttccct agccaatggc cactgatcgt ttgacccggg 60
 ttcacagtct ccgtagagagg cttgatgaaa ccctcactgc caacaggaac gaaattttgg 120
 cccttctgtc aaggtcgaag ctaagggcaa ggggatcctg caacaccacc aggtcattgc 180
 tgagtttgag gaaatccctg aggagaacag gcagaagctt actgatggtg cctttggaga 240
 agtcttgaga tctacacagg aa 262

<210> 2564
 <211> 237
 <212> nucleic acid
 <213> Glycine max

 <400> 2564

 gcgttcattc tgttttctg ttgaagtctt tccctagcca atggccatcg atcgtttgac 60
 ccgggttcac agtctccgtg agaggcttga tgaaaccctc actgccaaca ggaatgaaat 120
 tttggccctt ctgtcaagga tcgaagccaa gggcaagggc atcctgcaac accaccaggt 180
 cattgctgag tttgaggaaa tccctgagga gaacagacag aagctcactg atgggtgc 237

<210> 2565
 <211> 268
 <212> nucleic acid
 <213> Glycine max

 <400> 2565

 ctttacaccc ccctctctat tttgcgttca ttctgttttc cagttgaagt ctttccctag 60
 ccaatggcca ctgatcgttt gaccggggtt cacagtctcc gtgagaggct tgatgaaacc 120
 ctactgcca acaggacgaa attttgccc ttctgtcaag gatcgaagct aagggaagg 180
 ggatcctgca acaccaccag gtcattgctg agtttgagga aatccctgag gagaacaggc 240
 agaagcttac tgatggtgcc tttggaga 268

<210> 2566
 <211> 268
 <212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (21), (228), (256), (264), (266)

<223> unsure at all n locations

<400> 2566

cttctcttta cccccccctc ncctatcttg cgttcattct gttttccagt tgaagtcttt 60
ccctagccaa tggccactga tcgtttgacc cgggttcaca gtctccgtga gaggcttgat 120
gaaaccctca ctgccaacag gaacgaaatt ttggcccttc tgtcaaggat cgaagctaag 180
ggcaagggga tcctgcaaca ccaccaggtc attgctgagt ttgagganat ccctgaggag 240
aacaggcaga agcttnctga tggngnct 268

<210> 2567

<211> 237

<212> nucleic acid

<213> Glycine max

<400> 2567

cgttcattct gttttcctgt tgaagtcttt ccctagccaa tggccaccga tcgtttgacc 60
cgggttcaca gtctccgtga gaggcttgat gaaaccctca ctgccaacag gaatgaaatt 120
ttggcccttc tgtcaaggat cgaagccaag ggcaagggca tcctgcaaca ccaccaggtc 180
attgctgagt ttgaggaaat ccctgaggag aacagacaga agctcactga tggtgcc 237

<210> 2568

<211> 261

<212> nucleic acid

<213> Glycine max

<400> 2568

cttctcttta cccccccctc tctatcttgc gttcattctg tcttcttgaa gtctttccct 60
agccaatggc cactgatcgt ttgaccggg ttcacagtct ccgtcagagg cttgatgaaa 120
ccctcactgc caacaggaac gaaattttgg cccttctgtc aaggatcgaa gctaagggca 180
acgggatctt gcaacaccac caggtcattg ctgagtttga ggaaatccct gaggagaaca 240
ggcagaagct tactgatggt g 261

<210> 2569
 <211> 263
 <212> nucleic acid
 <213> Glycine max

 <400> 2569

 acacccccct ctctattttg cgttcattct gttttacagt tgaagtcttt ccatagccaa 60
 tggccactga tcgtttgacc cgggttcaca gtctccgtga gaggcttgat gaaaccctca 120
 ctgccaacag gaacgaaatt ttggcccttc tgtcaaggat cgaagctaag ggcaagggga 180
 tcttgcaaca ccaccaggtc attgctgagt ttgaggaaat cctgaggaga acaggcagag 240
 cttactgatg gtgctatgga gaa 263

<210> 2570
 <211> 229
 <212> nucleic acid
 <213> Glycine max

 <400> 2570

 ctgtttttcca gttgaagtct ttcctagcc aatggccact gatcgtttga cccgggttca 60
 cagtctccgt gagaggcttg atgaaaccct cactgccaac aggaacgaaa ttttggccct 120
 tctgtcaagg atcgaagcta agggcaaggg gatcctgcaa caccaccagg tcattgctga 180
 gtttgaggaa atccctgagg agaacaggca gaagcttact gatggtgcc 229

<210> 2571
 <211> 265
 <212> nucleic acid
 <213> Glycine max

 <220>
 <221> unsure
 <222> (90)
 <223>

 <400> 2571

 cttctcttta cccccctc tctattttgc gttcattctg ttttccagtt gaagtctttc 60
 cctagccaat ggccactcga tcgtttgacn cggggtcaca gtctccgtga gaggcttgat 120
 gaaaccctca ctgccaacag gaacgaaatt ttggcccttc tgtcaaggat cgaagctaag 180
 ggcaagggga tcttgcaaca ccaccaggtc attgctgagt ttgaggaaat ccctgaggag 240

aacaggcaga agcttactga tgggtg

265

<210> 2572
<211> 264
<212> nucleic acid
<213> Glycine max

<400> 2572

gttcattctg ttttcttgaa gtctttccct agccaatggc cactgatcgt ttgacccggg 60
ttcacagtct ccgtgagacg cttgatgaaa ccctcactgc caacaggaac gaaatttttg 120
cccttctgtc aaggatcgaa gctaagggca aggggatcct gcaacaccac caggtcattg 180
ctgagtttga ggaaatccct gaggagaaca ggcagaagct tactgatggt gcctttggag 240
aagtcttgag atctacacag gaag 264

<210> 2573
<211> 252
<212> nucleic acid
<213> Glycine max

<400> 2573

ctttataccc cccctctctt tttttgcgtt cattctgttt tcctgttgaa gtctttccct 60
agccaatggc caccgatcgt ttgacccggg ttcacagtct ccgtgagagg cttgatgaaa 120
ccctcactgc caacaggaat gaaatttttg cccttctgtc aaggatcgaa gccaaaggca 180
agggcatcct gcaacaccac caggtcattg ctgagtttga ggaaatccct gaggagaaca 240
gacagaagct ca 252

<210> 2574
<211> 242
<212> nucleic acid
<213> Glycine max

<400> 2574

ctctttatac cccccctctc ttttttgcgt tcattctgtt ttctgttgaa agtctttccc 60
tagcaaatgg ccaccgatcg tttgacccgg gttcacagtc tccgtgagag gcttgatgaa 120
accctcactg ccaacaggaa tgaaattttg ggcttctgt caaagatcga agccaagggc 180
caaggcatcc tgcaacacca ccaggtcatt gctgaatttg aggaaatccc tgaggagaac 240

ag

242

<210> 2575
<211> 269
<212> nucleic acid
<213> Glycine max

<400> 2575

tctttatata ccccggcgct tgtgtgcggt cattctgttt tgctgttgaa gtcggtccta 60
gccagtgggc accgatcggt tgacccgggt tcacagtctc cgtgagaggc ttgatgaaac 120
cctcactgcc aacaggaatg aaattttggc ccttctgtca aggatcgaag ccaagggcaa 180
gggcatcgtg caacaccacc aggtcattgc tgagtttgag gaaatccctg atgagaacag 240
acagaagctc actgatgggt cctttggag 269

<210> 2576
<211> 255
<212> nucleic acid
<213> Glycine max

<400> 2576

attcggtcgt agcttctctt tacaccccc tctctatttt gcgttcactc tgtattccag 60
ttgacgtctt tccctagcca atggccactg atcgcttgac ccgggttcac agtctccgtg 120
agaggcttga tgataccctc actgccaaca ggatcgaaat tttggccctt ctgtcaagga 180
tcgaagctaa gggcaagggg atcctgcaac accaccaggt cattgctgag tttgaggaaa 240
tccctgagga gaaca 255

<210> 2577
<211> 142
<212> nucleic acid
<213> Glycine max

<400> 2577

acccccctct ctattttggt ttcattctgt tttccagttg aagtctttcc ctagccaatg 60
gccactgata gtttgaccgg gggtcacagt ctccgtgaga ggcttgatga aaccctcact 120
gccaacagga acgaaatttt gg 142

<210> 2578

<211> 158
 <212> nucleic acid
 <213> Glycine max

<400> 2578
 ctttacaccc cctctctatt ttgcgttcat tctgttttcc agttgaagtc tttccctagc 60
 caatggccac tgatcgtttg acccgggttc acagtctccg tgagagggtt gatgaaaccc 120
 tcactgccaa caggaacgaa attttggccc ttctgtca 158

<210> 2579
 <211> 132
 <212> nucleic acid
 <213> Glycine max

<400> 2579
 cttctcttta cccccctc tctattttgc gttcattctg tttaccagtt gaagtctttc 60
 cctagccaat ggccactgat cgtttgaccc gggttcacag tctccgtgag aggcttgatg 120
 aaaccctcac tg 132

<210> 2580
 <211> 259
 <212> nucleic acid
 <213> Glycine max

<400> 2580
 gtgcccttga aaatgagatg ctccttcgga tcaagaaaca gggacttgat ttcactccaa 60
 gaattcta atgtaccagg ttaataacctg atgcaaagg gacaacatgc aaccagcggc 120
 tagaaagagt cagtgggtact gaccatactc atattttgcg agttccattc agatcagagt 180
 caggaactct ccgtaaatgg atttcaaggt ttgatgtgtg gccttatcta gagacttatg 240
 cagaggatgt tgccagtga 259

<210> 2581
 <211> 221
 <212> nucleic acid
 <213> Glycine max

<400> 2581
 tgatttcact ccaagaattc taatagttac caggttaata cctgatgcaa aggggacaac 60

<211> 391
 <212> nucleic acid
 <213> Glycine max

<400> 2584

tacggctgcg agaagacgac agaaggggga agagaaggcc gagatgaaga agatgtacgg 60
 cctgatcgag acctacaagt tgaacgggca attcagatgg atttcatctc agatgaaccg 120
 tgtgaggaac ggagagctgt accgtgtgat ctgcgacacc aaggagctt tcgtgcagcc 180
 ggctatatac gaggcttttg gtttgacagt ggttgaggcc atgacttgtg ggttgccaac 240
 attcgccaca tgcaatggtg gtcctgctga gatcattgtg catggcaagt ctggcttcca 300
 cattgaccct taccatggtg accgtgctgc tgatctcctt gttgacttct ttgagaagtg 360
 caagcttgac ccaaccact gggaaacaat c 391

<210> 2585
 <211> 398
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (382), (389)
 <223> unsure at all n locations

<400> 2585

cccacgcgtc cgcccacgcg tccgcccacg cgtccgcca cgcgtccgcg gctgcgagaa 60
 gacgacagaa ggggtacggc ctgatcgaga cccacaagtt gaacggccaa ttcagatgga 120
 tttcatcgca gatgaaccgt gtgaggaatg gagagctcta ccgctgatac tgcgacacca 180
 ggggtgcttt cgtgcagcct gctgtatacg aggcttttgg tttgacagtg gttgaggcca 240
 tgacttgagg cttgccaaca ttcgccacat gcaatggtgg tcctgctgag atcattgtgc 300
 acggcaagtc tggtttccac attgaccctt accatggtga ccgtgctgct gatctccttg 360
 ttgacttctt tgagaagtgc angettgan ccaactcac 398

<210> 2586
 <211> 415
 <212> nucleic acid
 <213> Glycine max

<220>

<221> unsure
 <222> (350)
 <223>

<400> 2586

gttcgtgcct tggagaatga gatgctcaac cgcacaaaga agcaaggcct tgatatacacc 60
 cctcgtattc tcattattac tcgtcttctc cctgatgcag taggaactac ctgtggccaa 120
 cgtctagaga gggatatatga tactgaatat tgtgacattc tccgagttcc tttcagaacc 180
 gaaaaggga ttgttcgcaa atggatctca agattcgaag tctggccata cctagagact 240
 tacactgagg atgttgccct tgaacttgcc aaggagttgc aagccaagcc agatctgac 300
 gttggaaact acagtgatgg aaacattgtt gcctctttgt tagcacatan attaggagta 360
 actcagtgtg ccattgctca tgctctagaa aagaccaagt accctgagtc tgaca 415

<210> 2587
 <211> 403
 <212> nucleic acid
 <213> Glycine max

<400> 2587

gaaatatcat ttctcatgcc aatttactgc tgatcttttt gcaatgaacc acacagactt 60
 tatcatcacc agcaccttcc aagagattgc tggaagcaag gacactgttg gacagtatga 120
 gagtcacact gccttcaccc ttccaggact ttaccgtgtt gttcacggta ttgatccatt 180
 tgatccaaag ttcaacattg tctctcccgg tgcagacatg ggtatatact tcccatacac 240
 tgaaactgag cgtagggttaa cagaattcca ctctgacatt gaagagcttc tttacagctc 300
 agtggagaat gaggaacaca tatgcgtatt gaaggaccgc aacaaaccaa taatcttcac 360
 catggcaagg cttgaccgtg tgaagaacaa cacggggcctt gtc 403

<210> 2588
 <211> 417
 <212> nucleic acid
 <213> Glycine max

<400> 2588

acgtacggct gcgagaagac gacagaaggg gatggaaaca ttgttgccctc tttgttagca 60
 cataaattag gagtaactca gtgtaccatt gctcatgctc tagaaaagac caagtaccct 120

6636342260

gagtctgaca tttactggaa aaaatttgaa gagaaatatac acttctcatg ccaatttact 180
gctgatcttt ttgcaatgaa ccacacagac tttatcatca ccagcacctt ccaagagatt 240
gctggaagca aggacactgt tggacagtat gagagtcaca ctgccttcac ccttccagga 300
ctctaccgtg ttgttcacgg tattgatccc tttgatccaa agttcaacat cgtctcttcc 360
ggttgccgac atgagcataa acttcgcata cactgaaact gagcgtaggt taacaga 417

<210> 2589
<211> 455
<212> nucleic acid
<213> Glycine max

<400> 2589

caggtacacg tggaagattt attccgaaag gcttatgact ttggcgggag tttatagttt 60
ctggaaatgc gtttccaaat tagagaggcg tgaaactoga cgatatcttg agatgttcta 120
tatectcaag ttccgtgatt tggcaaattc tgttccgcta gctaaggatg atgcaagtta 180
actagctata taatttcacc aaaggcttga cagcagacat aataagagtc atttatgtaa 240
atataatagt ctgcttctcg tgttttgaaa tctagtgagg cgacctagag gagtttcatg 300
gaagacttgt cttgtctatg ttaacttoga ttatgtaaga gatggcgagc actggttgtt 360
gaatttggat gtctcttggt ttcgtttgat tagtagtcat caatgatata gacctggaaa 420
ttacctgtga cttgaggatg ttatccttac tgatg 455

<210> 2590
<211> 381
<212> nucleic acid
<213> Glycine max

<400> 2590

gttcattctg ttttccagtt gaagtctttc cctagccaat ggccactgat cgtttgaccc 60
gggttcacag tctccgtgag aggcttgatg aaaccctcac tgccaacagg aacgaaattt 120
tggcccttct gtcaaggatc gaagctaagg gcaaggggat cctgcaacac caccaggtca 180
ttgctgagtt tgaggaaatc cctgaggaga acaggcagaa gcttactgat ggtgcctttg 240
gagaagtctt gagatctaca caggaagcca tagttttgcc accatgggtt gctctggctg 300
ttcgtccaag gcctgggtgtg tgggagtacc tgaaagtgaa tgtgcacgct cttgttgttg 360

aggagttgca acctgctgag t

381

<210> 2591
<211> 276
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (207), (217), (226), (228) ... (229), (231), (233) ... (234),
(237), (239) ... (240), (243), (265) ... (266)
<223> unsure at all n locations

<400> 2591

gttgatgcta ttatcaagtg tcaaggtcct cctacaacat caggatacat ggttgtaaat 60

atggaatggg gaaacttttg gtcactctcat ttaccaagaa catcttatga tattgattta 120

gactctgaaa gccctaattc aaatgatcag ggttttgaga aaatgatatc tggaatgtat 180

cttggtgaca tcgtgaggag agtcatncta aggatgncgc tagagncnnt ntnnctngnn 240

ccnattcttc caaactttca agccnntatg ctgagg 276

<210> 2592
<211> 153
<212> nucleic acid
<213> Glycine max

<400> 2592

gttgaagaag cctactctc tcgacgcctc tttcctctcc gacatcgaga acgaccctt 60

cgagaacctg caagagactc acgatatctt cgtcaaccag atgggtatca agccattgg 120

gcttaagtta gagtttccgg ggggttttcg aaa 153

<210> 2593
<211> 223
<212> nucleic acid
<213> Glycine max

<400> 2593

ccgggcttcc catgataccc agctatgttg aaaatcttcc cactgggaat gagaaagggt 60

tgttttatgc cttggatctc ggaggaacca acttccgtgt gctgagggtg cagttgggtg 120

gcaaagatga gcgtgtcatt gccaccgagt ttgatcaagt ttccatacct catcaactca 180

tgtttgctac atctcaggag ctgtttgatt tcattgcttc ggg

<210> 2594
 <211> 257
 <212> nucleic acid
 <213> Glycine max

<400> 2594
 tgcacgcggg tcttgcttct gaagggtggca gcaagctcaa gatgttgatc acttatgttg 60
 ataatctccc ttctggggat gagaaaggac tcttttatgc attagacctt ggtggcacia 120
 acttccgaac ccttcgcgtg catttaggtg ggaaggagaa aggtgttgtc aaaatagagt 180
 ctgatgaagt ttccattcct cctcatttga tgactggctc ttcacaagaa ttatttgatt 240
 ttatagcatc taaacta 257

<210> 2595
 <211> 246
 <212> nucleic acid
 <213> Glycine max

<400> 2595
 atttgatgac tggttcttca caagaattat ttgattttat agcatctaaa ctagcaaaat 60
 tcgttagttc tgagcctgaa gagttacacc ctccccctgg cagacaaagg gaattgggtt 120
 ttaccttctc atttccagtg aggcaaacat caattgcatc tgggaatata ataaagtgga 180
 ctaaagggtt caatcttgag gatgcggttg gagaagatgt ggtgggtgaa ctgaccaagt 240
 ccttag 246

<210> 2596
 <211> 262
 <212> nucleic acid
 <213> Glycine max

<400> 2596
 gcagattcta caatcaggat gtcattgctg ctgtgattct tggactggg acaaatgcag 60
 catatgtaga acgagcacat gctattccaa aatggcatgg gcttatacca aaatcaggag 120
 atatggttat aaacatggag tggggatttt ccgatcatca catcttctc taacagaata 180
 tgatctagct ccggatgctc agagcttaaa ccctggagaa cagatttttg agaaattgat 240

ttctggcatg tatttggggg aa

262

<210> 2597
<211> 254
<212> nucleic acid
<213> Glycine max

<400> 2597

atcggttggg aggctgaggc aggtggtgga tgctatggcc gttgagatgc acgctggggtt 60
ggcatcagaa ggtggttcca agctcaaaat gcttctcaca tatgttcata atctccctaa 120
tgggactgag aaaggaacat attatgcact agatcttggg ggtactaatt ttcgggtttt 180
gcgggttcat ttgcatggtc aacaatcttc tgttttggaa catgaagtag agcgacaccc 240
attcctcaaa atct 254

<210> 2598
<211> 267
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (254)
<223>

<400> 2598

ctcccatcag aggacaaagc ttccgacttt gcgggattcg ttcgtatttg tttcagtgct 60
gtgatgggga aggtcgcggt gggagctgcc gttgtctgcg ccgccgccgt atgcgctgcg 120
gcggcgctgg tgggtgcgcca ccgcatgatt cgttcccga agtggagtcg cgccatggcg 180
atactgaagg agtttgagga gaagtgtggc accccaattg tgaagctaag acaagtgcgc 240
tgatgccatg gatnttgaga tcacgcg 267

<210> 2599
<211> 252
<212> nucleic acid
<213> Glycine max

<400> 2599

gttacaccct cccctggca gacaaaggga actgggtttt acattctcat ttccagtga 60
gcaaacatcc atagcatctg ggactctaataaagtggaact aaagggtttca atattgagga 120

6636373839404142434445464748495051525354555657585960616263646566676869707172737475767778798081828384858687888990919293949596979899

tgcggttgga gaagatgtgg tgggtggact aaccaagtcc ttagaaaaaa ttggtctgga 180
 tatgcgtggt gcagctctag ttaatgacac agttggaact gtggctagag ctagattcag 240
 caatcaggat gt 252

<210> 2600
 <211> 250
 <212> nucleic acid
 <213> Glycine max

<400> 2600

tgaagatgcy gttggtgaag atgtggtggg agaactaacc aagtccatgg aaaaaattgg 60
 cctggatatg cgcgttgctg ctctagtcag tctcactctc ctctcttttg gatttcttta 120
 ttttttatag ccggatttga gcatgatggt ttccagtttg tgtctgacag aaatttggag 180
 ttataagggtt aatgatacca ttggaacatt agctggaggc agattctaca atcaggatgt 240
 cattgctgct 250

<210> 2601
 <211> 252
 <212> nucleic acid
 <213> Glycine max
 <220>
 <221> unsure
 <222> (238), (242), (248)
 <223> unsure at all n locations

<400> 2601

gatatattag agatcaataa cacatccctg aaaatgagga agattgttgt ggaactctgt 60
 gatattgttg ctaatcgggg agcccgcctt tctgctgctg gtatttttgg catcctcaag 120
 aaaataggaa gagacacagt aaaggacggg aagaaatcag tagtagcact ggatggagga 180
 ttgtttgaac actatactaa ttcagagttc cttggagagt acaaaaaggt ttttgggnaa 240
 cnccccnac ca 252

<210> 2602
 <211> 268
 <212> nucleic acid
 <213> Glycine max

<400> 2602
 cgataatctc ccaactgggg atgaggaagg cctctattat gcattggatc ttggcggcac 60
 aaacttccgt gtccttcgtg tacatttagg ggggaaagac aaaggtgtta tcggccagga 120
 gtttgaagaa gtttcaattc ctccaaattt gatgactggc tcttcagatg cattgttcga 180
 ttttatagca gcaggctctg caaagtttgt tgggtcagaa ccctgaagggt ttcattctccc 240
 cctgggaaga caagaggact gggtttac 268

<210> 2603
 <211> 268
 <212> nucleic acid
 <213> Glycine max

<400> 2603
 attttgggca tccttaagaa aataggaaga gacacggtta aggttgggga gaagcaaaag 60
 tcagtgatag ctttggatgg gggattgttt gaacactaca ccaaatttag agaatgcttg 120
 gagggtagcc tgaaggaatt gctgggagat gaggctgctg agaccattgt cattgagcat 180
 gctaataatg gctctggcat tgggtgcagcc ctctggcag cttctcactc ccaatatttg 240
 ggagtggagg agtcttaaata tttattgc 268

<210> 2604
 <211> 224
 <212> nucleic acid
 <213> Glycine max

<400> 2604
 ctcaaacaca tcccttaaaa tgaggaagat cgttgttgaa ctgtgtgaca ttgttgctac 60
 tcgaggagct cggcttgctg ctgctggtat tttgggcac ctaagaaaa taggaagaga 120
 cacagttaag gttggggaga agcaaaagtc agtgatagcg ttggatgggg ggttgtttga 180
 aactacacc aaatttagag aatgcttgga gagtgcactg aagg 224

<210> 2605
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<400> 2605

cgatctgcac gctgggttgg catcagaagg tggttctaaa ctcaaatgc ttataacatt 60
 tgttcataat ctccctaata ggactgagaa aggaacatat tatgcactag atcttggggg 120
 tacaaatddd agggttttgc gggttcattt gcatggtcaa caatcgtctg ttttggaaaca 180
 tgaagtagag cgacagccca ttcctcaaca tctaatagacc agcacaagtg aggatctctt 240
 tgatttcctt gcttcttcat taaag 265

<210> 2606
 <211> 266
 <212> nucleic acid
 <213> Glycine max
 <220>
 <221> unsure
 <222> (189)...(190)
 <223> unsure at all n locations

<400> 2606
 accaagtcca tggaaaaaat tggcctggat atgcgcgttg ctgctctagt taatgatacc 60
 attggaacat tagctggagg cagattctac aatcaggatg tcgttgctgc tgtgattctt 120
 ggtactggga caaatgcagc atatgtagaa cgtgcacatg ctattccaaa atggcatggc 180
 cttataccnn aatcaggaga tatggttata aacatggagt ggggtaattt ccgatcatca 240
 catcttcttc taacagaata tgatct 266

<210> 2607
 <211> 261
 <212> nucleic acid
 <213> Glycine max

<400> 2607
 gtttgaaaaa tctgtcccg cagacactatc tacacctttc atactcggga cctcagatct 60
 atgtgccatg caacaggact gttctggcga ttacatgca gttgggtctc tcctctacga 120
 taaagcaggg gttgaatcca atttaagtga aagagaaaca gttttggagg tttgtgagac 180
 tattgtaaag cgaggcggga gcttagctgg tgcaggaata gtggggattc tacaaaaaat 240
 ggaagaggac cagagaggtc t 261

<210> 2608
 <211> 268

<212> nucleic acid
<213> Glycine max

<400> 2608

tctcgagccg ctcgagccgc ggctcgagaa ttgttagacg agtgcacgct ggaaatggct 60
gaagacggtg acctgttttg aaaatctatc ccgcagacac tatctacacc tttcatactc 120
gggacctcag atctatgtgc catgcaacag gactgttctg gcgatttaca tgcagttggg 180
tctctcctct acgataaagc aggggttgaa tccaatttaa gtgaaagaga aacagttttg 240
gaggttttgtg agactattgt aaagcgag 268

<210> 2609
<211> 261
<212> nucleic acid
<213> Glycine max

<400> 2609

caagaaaata ggaagagaca cagtaaagga cgggaagaaa tcagtagtag cactggatgg 60
aggattgttt gaacactata ctaaattcag aagttccttg gagagtacac taaaggagtt 120
gttgggagat gaggcagctg agacaattgg cattgagcag tctaatagatg gctctggaat 180
tggagcagcc ctctggcag cttctcactc ccagtatttg gaagtgcagg agtcctgaag 240
atgtgggttaa tgtcaaggta a 261

<210> 2610
<211> 264
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (5), (24), (31), (38) ... (39), (42), (53) ... (54), (99), (111),
(132), (144), (224), (227)
<223> unsure at all n locations

<400> 2610

cgggnagaaa tcagtagtag cacngcatgg nggattgnnc cnacactata ctnn cattca 60
gaagttcctt ggagagtaca ctaaaggagt tggtgggcnt gaggcagctg ngacaattgg 120
cattgagcag tntaatgatg gctncggaat tggagcagcc ctctggcag cttctcactc 180
ccagtatttg gaagtgcagg agtcctgaag atgtgggtta atgncanggt aaatcagtgt 240

aacatagttt cattttttga tacc

264

<210> 2611
<211> 247
<212> nucleic acid
<213> Glycine max

<400> 2611

cccaaattga aagttccttt catacttagg acgcctgaca tgtcagccat gcaccatgac 60
acaagttctg atctgaaagt ggttggaac aagttaaagg atatattaga gatctcaaac 120
acatccttaa aatgaggaag atcgttggtg aactgtgtga cattgttgct actcgcggag 180
ctcggcttgc tgctgctggt attttgggca tccttaagaa aataggaaga gacacagtta 240
aggttgg 247

<210> 2612
<211> 247
<212> nucleic acid
<213> Glycine max

<400> 2612

gaagttgtaa ggagagcttt attgaagatg gccgaagaag ctgacttttt tggcgatact 60
gtgcccccca aattgaaagt tcctttcata cttaggacgc ctgacatgtc agccatgcac 120
catgacacaa gttctgatct gcaagtgggt ggaaacaagt taaaggatat attagagatc 180
tcaaacacat cccttaaaat gaggacgatc gttgttgaac tgtgtgacat tgttgctact 240
cgcggag 247

<210> 2613
<211> 278
<212> nucleic acid
<213> Glycine max

<400> 2613

cggtctgagt tcacagattt ttgagaaatt gatttctggc atgtatttgg gggaaattgt 60
aaggagagct ttatttaaga tggccgaaga agctgatttt tttggagata ctgttcccc 120
caaattgaaa gttcctttca tacttaggac gcctgacatg tcagccatgc accatgacac 180
aagttctgat ctgaaagtag ttggaaacaa attaaaggat atattagaga tctctaacac 240

atccctaata atgaggaaga ttgttggtga actgtgtg

278

<210> 2614
<211> 249
<212> nucleic acid
<213> Glycine max

<400> 2614

tgcccaaat accagcagca gcaagccgag ctccgcgagt agcaacaatg tcacacagtt 60
caacaacgat cttcctcatt ttaagggatg tgtttgagat ctctaataata tcctttaact 120
tgtttccaac cactttcaga tcagaacttg tgatcatggtg catggctgac atgtccaggc 180
gtcctaaga aaattatgtc agaactccaa aagctctatt tcaacaaaag gtaatgtgtt 240
caaatgaag 249

<210> 2615
<211> 255
<212> nucleic acid
<213> Glycine max

<400> 2615

ggtcgcgtgg tggctattgt gaaagagttt gaggagcagt gtaggacccc aattgggaag 60
ctgagacagg ttgctgacgc catggacgtt gagatgcacg cgggtcttgc ttctgaaggt 120
ggcagcaagc tcaagatgtt gatcacttat gttgataatc tcccttctgg ggatgagaaa 180
ggactctttt atgcattaga ccttgggtggc acaaacttcc gaacccttcg cgtgcattta 240
ggtggaagg agaaa 255

<210> 2616
<211> 248
<212> nucleic acid
<213> Glycine max

<400> 2616

ggggcggcgt gtgctgcggt ggcgctgggt gtgctgcaccg atgatgagct ccggaaagtg 60
gggtcgcgtg ttggtatttg tgaaagagtt tgaggagcag tgtaggaccc caactgggaa 120
gtgagacag ttgctgacg ccatggacgt tgagatgcac gcgggtcttg cttctgaagg 180
tggcagcaag ctcaagatgt tgatcactta tggtgataat ctcccttctg gggatgagaa 240

aggatcctt

<210> 2617
 <211> 263
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (214)
 <223>

<400> 2617

atgaggagct ccggaagtg gggtcgctg gtggctattg tgaaagagtt tgaggagcag 60
 tgtaggaccc caattgggaa gctgagacag gttgctgacg ccatggacgt tgagatgcac 120
 gcgggtactg cttctgaagg tggcagcaag ctcaagatgt tgatcactta tgttgataat 180
 ctccctctgg ggatgagaaa ggactcttta tgcnttagac ctggtggcac aaacttccga 240
 accctcgctg cattagtggg aag 263

<210> 2618
 <211> 143
 <212> nucleic acid
 <213> Glycine max

<400> 2618

cagtgttggg ccccaatttc gaagctgaga caggttgctg atgccctgga cgttgagatg 60
 cacgctgggc ttgcttctga aggtggatgt aagctcaaga tgttgatcac ttatgttgat 120
 aatctccctt ctggggatga gaa 143

<210> 2619
 <211> 279
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (12), (31), (33), (54), (62)
 <223> unsure at all n locations

<400> 2619

cgtcgcttg cncggcggcg gcgtgtgctc ncngtggcgc tgggtggtgcg ccancgcatg 60

angagctccg gaaagtgggg tcgctggtg gctattgtga aacagtttga ggagcagtgt 120
aggaccccaa ttgggaagct acgacagttg ctgacgccat ggacgttgag atgcacgcgg 180
gtcttgcttc tgaaggtggc agcaagctca agatgttgat cacttatgtt gataatctcc 240
cttctgggga tgagaaagga ctcttttatg cattagacc 279

<210> 2620
<211> 289
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (63), (75), (88), (101), (199), (203)
<223> unsure at all n locations

<400> 2620
catcaattgc atctgggaat ataataaagt ggactaaagg tttcaatatt gaggatgcgg 60
ttngagaaag atgtngtggg tgaactgncc aagtccttag naaaaattgg tctggatatg 120
catgttgcag ctctagttaa tgacacagtt ggaacagtgg ctagagcaag attcagcaat 180
caggatgtca ttgctggant gantcttggg actgggacaa atgcagctta tgtagagtgt 240
gcacatgcaa ttccacaatg gcatggtctt ctacaaaaat caggagacc 289

<210> 2621
<211> 264
<212> nucleic acid
<213> Glycine max

<400> 2621
actcgagccg attcggctcg agtgaggatg cggttggaga agatgtactg ggtggactaa 60
ccacagtctt agaaaaaatt ggtctggata tgcgtgttgc agctctagtt aatgacacag 120
ttggaactgt ggctagagct agattcagca atcaggatgt cattgctgga gtgattcttg 180
gtacagggac aaatgcagct tatgtagagt gtgcacatgc aattccaaaa tggcaaggtc 240
ttotaccaa atcaggagag atgg 264

<210> 2622
<211> 270
<212> nucleic acid

<213> Glycine max
 <400> 2622
 gagaacagat ttttgagaag ataatttctg gtatgtattt gggtgaaatt gtaaggagag 60
 ttttgttgaa gttggctgaa gaagttgact tctttggaga tactgttcct ccaaaattga 120
 gaattccttt cgtacttagg acacctgaca tgtctgcaat acatcaagat acatcttcag 180
 atctgaaggt ggttggaac aaattgaagg atatattaga gatcaataac acatccctga 240
 aatgaggaa gattgttgtg gaactctgtg 270

<210> 2623
 <211> 273
 <212> nucleic acid
 <213> Glycine max

<400> 2623
 atttctggta tgtatttggg tgaaattgta aggagagttt tgttgaagtt ggctgaagaa 60
 gttgacttct ttggagatac tgttcctcca aaattgagaa ttcctttcgt acttaggaca 120
 cctgacatgt ctgcaatata tcaagataca tcttcagatc tgaagggtgg tggaaacaaa 180
 ttgaaggata tattagagat caataacaca tccctgaaaa tgaggaagat tgttgtggaa 240
 ctctgtgata ttgttgctaa tcggggagcc cgc 273

<210> 2624
 <211> 267
 <212> nucleic acid
 <213> Glycine max

<400> 2624
 cagagaggtc tcgtcttttg gaatgggaag agaagtgttg ttgccattga tgggggctta 60
 tatgaaaatt atcctcaata cagggttat ttgcaagatt cagtcacaga gctgctagga 120
 acagaaaagt caaacaatgt ggtgatagag catactaaag atggatctgg aataggagct 180
 gctctatttg ctgcttcaaa ctccatgtac aaccaagact tatagtccat tatcatgcaa 240
 ataaaaattg aaggaataat ccatttt 267

<210> 2625
 <211> 280
 <212> nucleic acid

<213> Glycine max

<400> 2625

cagagaggtc tcgtcttttg gaatgggaag agaagtgttg ttgccattga tgggggctta 60
tatgaaaatt atcctcaata cagggcttat ttgcaagatt cagtcacaga gctgctagga 120
acagaaaagt caaacaatgt ggtgatagag catactaaag atggatctgg aataggagct 180
gctctatttg ctgcttcaaa ctccatgtac aaccaagact tatagtccat tatcatgcaa 240
ataaaaattg aaggaataat ccatttttcc tttgtatat 280

<210> 2626

<211> 248

<212> nucleic acid

<213> Glycine max

<400> 2626

ttgaaaacaa gtccacagta cttttttatg gtggtggggc tttagttgct gtttggctat 60
cgtcgattct tgtgagcgc atcaactctg ttcccttgct tccaaagatt atggagttgg 120
tggggctagg gtacactgga tggtttgtct accgatacct tctgtttaag tctagcagga 180
aggagctagc tacagacatt gagtcactga agaagaaaat tactggaact gaatagagtg 240
gtgttagc 248

<210> 2627

<211> 234

<212> nucleic acid

<213> Glycine max

<400> 2627

cttatcttcc ctcaaccact tctcagtgtc ccgaaaatct tctcaccttc agaccagagc 60
ttcttcagag gaatcatcct cagtagatgc caatgaggtg ttcacagatt tgaaggaaaa 120
gtgggatgct cttgaaaaca agtccacagt acttttttat ggtggtgggg ctttagttgc 180
tgtgtggcta tcgtcgattc ttgtgagcgc catcaactct gttcccttgc ttcc 234

<210> 2628

<211> 430

<212> nucleic acid

<213> Glycine max

<400> 2628

aatgacacag ttggaacagt ggctagagca agattcagca atcaggatgt cattgctgga 60

gtgatccttg gtacggggac aaatgcacct tatgtagagt gtgcacatgc aattccaaaa 120

tggcatgggc ttctaccaa atcaggagag atggttatta acatggagtg gggtaatttc 180

cgttcctcgc atcttcctct aacagaatat gatcatgctc tagatgcaga gagcttaaac 240

cctggagaac agatTTTTga gaagataatt tctggatatgt atttgggtga aattgtaagg 300

agagttttgt tgaagttggc tgaagaagtt gacttctttg gagatactgt tcctccaaaa 360

ttgagaattc ctttcgtact taggacacct gacatgtctg caatacatca agatacatct 420

tcagatctga 430

<210> 2629

<211> 413

<212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (362)

<223>

<400> 2629

agcccacgcg tccgtacggc tgcgagaaga cgacagaagg gggttgatgg ggggttggtt 60

gaacactaca ccaaatttag agaatgcttg gagagtgcac tgaaggaatt gctgggagat 120

gaggctgctg agaccattgt cattgagcat gctaattgat gctctggcat tgggtgcagcc 180

ctcctggcag cttctcactc ccaatatttg ggagtggagg agtcttaa at tttattgcca 240

aacaagggaa agacgtgtaa tactagtttc attttttgca taggtggtag atcaacacat 300

tgaagcaatg gtgccttgca gctggtgact gggggggcat tcattatttt ggtttcagtg 360

tntgtttctc cctcgtttaa gggaaatat caaagatata aacttcacct tga 413

<210> 2630

<211> 402

<212> nucleic acid

<213> Glycine max

<400> 2630

tgctaatacg ggagcccgcc tttctgctgc tggatattttt ggcacacctca agaaaatagg 60

ctcttgaaaa caagtccaca gtacttcttt atggtggaag ggctatagtt gctatttggc 360
tactgtcaat tcttgtgagc gccatcaact cagttccctt 400

<210> 2633
<211> 413
<212> nucleic acid
<213> Glycine max

<400> 2633

gatagataga gtgatacaca tcacattttc tcaaagtaag ttattaatta ataaataaat 60
ggcggcgggc gcggcagtga cgggtgctact cccacctagg attccgaccg ccaccaacgt 120
taccgctgc tctgctttgc cttctctgcc tcctcgcggc accaactacta aaaccacttt 180
gctcttatct tgctcaacc acttctcagt gtcccgaaaa tcttctctgc ttcagaccag 240
agcttcttca gaggaatcat cctcagtaga tgccaatgag gtgttcacag atttgaagga 300
aaagtgggat gctcttgaaa acaagtccac agtacttttt tatggtggtg gggctttagt 360
tgctgtttgg ctatcgtcga ttcttgtgag cgccatcaac tctggtccct tgc 413

<210> 2634
<211> 406
<212> nucleic acid
<213> Glycine max

<400> 2634

aaagttccaa attttttggg ttggggatag atagagtggg acgcgtcaca ttttcataat 60
aataaaaaaa tggcagcggc ggcggcagtg acggtgctac tcccacctag gattccgacc 120
accaccaacg ttaccgctg ctctgctttg cttctctctc ctctcgctg ctccaacacc 180
aaaaccactt tgttctcacc ttccctcaac aacttttcag tgtcccgaaa atcttctctg 240
cttcagacca gagcttcttc agaggaatca tcctcagtag atgccaatga ggtgttcaca 300
gatttgaagg aaaagtggga tgctcttgaa aacaagtcca cagtacttct ttatggtgga 360
ggggctatag ttgtatattg gctatcgtea attcttgtga gcgcca 406

<210> 2635
<211> 246
<212> nucleic acid
<213> Glycine max

<400> 2635
 cggtctgagc ttctacagca ttcttctgct attcaaatca aattttcaaa ccatggcttc 60
 ctccaccaat gatatactac gaaaaggcaa cggtatatac gtgagcttcg gcgagatgct 120
 catcgatttc gtccccaccg tctccggcgt gtcccttgcg gaggtcggg ctttcttcaa 180
 ggcccccggc gtccggcccc gccaacgtcg ccatcgccgt cgcgaggctc ggcggaagg 240
 cggcgt 246

<210> 2636
 <211> 259
 <212> nucleic acid
 <213> Glycine max

<400> 2636
 gccatgcaga tcagcacacc tgaaggcaat ggaagttgcc agggaagcag gatgcttgct 60
 ctcttatgac ccaaacctgc ggctaccctt gtggccctcc gccgaggaag cacgtcagca 120
 aatactcagc atatgggaca aggtgatgt aatcaaggtc agtgatgtgg aactggaatt 180
 cctaaccgga agtgacaaaa ttgatgatgc atctgctctc tccctgtggc accccaattt 240
 gaagttgctc cttgtcact 259

<210> 2637
 <211> 294
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (20), (33), (35) ... (36), (41), (84), (95), (102) ... (103),
 (179)
 <223> unsure at all n locations

<400> 2637
 aaaggtcagt gatgtggagn ttgatcaaat cancnnttct nccaaatgct gagtatttgc 60
 ttacgagctt cctcagcatt tgnnagaagg ctganttgac annaggtcag tgatgtggag 120
 cttgagttcc tcaccggaag tgacaagatt gatgatgaat ctgctttgtc attgtcacnc 180
 cccaatttga agttgtctct tgtcactctt ggagaacatg gttccagata ctacaccgag 240
 aatttcaaag gatcagtaga tgcttttcat gttaatacag ttgatacaac tggt 294

<210>	2638
<211>	295
<212>	nucleic acid
<213>	Glycine max

```
<220>
<221>      unsure
<222>      (81), (222), (234), (237), (257), (278), (291), (293) ... (294)
<223>      unsure at all n locations
```

cgccgacgga	gagcgtgagt	tcatgttcta	cagaaacccc	agcgccgaca	tgctgcctca	60
ccgcccgaag	atctcaatct	ncgaactcat	cagatctggc	aaaagtattc	ccattatgga	120
tcgataagct	tgatacgtgg	agccatgcag	attcaggcaa	cacctgaag	ggcaatggaa	180
gttggccagg	gaaggcaggc	atggcttgct	cctcttatgc	ancccaaaac	ctgncngnct	240
aaaccttggtg	ggccctnccg	gccgagcgac	ggcacgtnc	gcccataacc	nnnc	295

ccaagattgt	cgatgatcag	tccatacttg	aagatgaacc	aaggttaaga	gaagtactaa	60
agtttgcaaa	tgcatgtgga	gctattacaa	ctacccaaaa	gggagcaatt	ccggcccttc	120
ccaaagagga	ggctgcactg	aaactgatca	aaggggggtc	acagaatctt	ttggcaaaat	180
gcaaaaagtgc	tagcatgatt	tcgttttctt	cccctaattg	ttaaattttc	cgttggattt	240
gcttgctata	agtttaggag	ggaact				266

gtgagttctt gtttttccga aatcctagtg ctgatatgct acttcaagag tccgagcttg 60
ataaaaaatct cataaagaag gctaaaattt tccattatgg ttccatcagc ttgattgatg 120
agccatgcaa gtctgtcat cttgtctgta tgagatttgc tanagaatct ggttgcattc 180
tttcgtatga tccaaatttg agatt 205

<210> 2641
<211> 286
<212> nucleic acid
<213> Glycine max

<400> 2641

cggacttcgg ctcgaggtc atcgacttcg tccccaccgt ctctggcgtg tccctggccg 60
aggcccttgg cttcctcaag gccccggcg gcgccccgc taacgtcgcc atcgccgtgt 120
cgcgcctcgg cggcaaagcc gccttcgtcg gcaagctcgg cgacgacgag ttcggccaca 180
tgctcgccgg aatcctcaag gaaaacggcg ttcgcgccga cggcatcaac tttgaccagg 240
gcgcacgcac cgccctggcc ttcgtgaccc tacgcgccga cgggga 286

<210> 2642
<211> 268
<212> nucleic acid
<213> Glycine max

<400> 2642

cttctatctc tgcaattcaa acacaaaaac catggcttcc actaatgctc ttcctccac 60
cggcaacggc ctcatcgtga gtttcggcga gatgctcatc gacttcgttc ccaccgtctc 120
cggcgtgtcc ctcgcgagg ctccgggatt cctcaaggcc cccggcggcg ccccccgcaa 180
cgttgccatc gccgtcgca gactcggtcg caaagcggcg ttcgtcggga agctcggcga 240
cgacgagttc gggcacatgc tggccgga 268

<210> 2643
<211> 265
<212> nucleic acid
<213> Glycine max

<400> 2643

cggctcgagc cggcgtgtcc ctcgcgagg ctccgggatt cctcaaggcc cccggcggcg 60

cccccgcaa cgttgccatc gccgtcgcga gactcggcgc caaagcggcg ttcgtcggga 120
agctcggcga cgacgagttc gggcacatgc tggcccgaaat cctgaaggag aacgacgtgc 180
gatccgacgg gatcaacttc gaaaagggcg cgcgcaccgc gctggcggttc gtgaccctac 240
gcgccgacgg ggagcgtgag ttcac 265

<210>	2644
<211>	263
<212>	nucleic acid
<213>	Glycine max

<400> 2644

ccaacgctct	tcttcccacc	ggcaacagcc	tcatcgtgag	cttcggcgag	atgctcatcg	60
atttcgtccc	caccgtctcc	ggcgtgtccc	ttgcggaggc	tccgggcttc	ctcaaggccc	120
cggcgggcgc	ccccgcaacg	tgcccatcgc	cgtcgcgagg	ctcggcgga	aggcggcggt	180
cgtcggaaa	ctcggcgacg	acgagttcgg	gcacatgctg	gctgagatcc	tgaaggagaa	240
cgacgtgcga	tacgacggga	tca				263

<210>	2645
<211>	247
<212>	nucleic acid
<213>	Glycine max

<400> 2645

ctcgagccgt	tctatctctg	caattcaaac	acaaaaacca	tggtttccac	taatgctctt	60
cctcccaccg	gcaacggcct	catcgtgagc	ttcggcgaga	tgctcatcga	cttcggtccc	120
accgtctccg	gcgtgtccct	cgcgagggct	ccgggattcc	tcaaggcccc	cggcggcgcc	180
ccgcceaacg	ttgccatcgc	cgtcgcgaga	ctcggcggca	aagcggcggt	cgtcgggaag	240
ctcggcg						247

<210>	2646
<211>	276
<212>	nucleic acid
<213>	Glycine max

```
<220>
<221>      unsure
<222>      {153}, {181}, {201}, {215}, {236}, {258}, {266}
```

<223> unsure at all n locations

<400> 2646

actaactctc tcattcttcta cagcattctt ctgcaattca aatcaaattt tcaaaccatg 60
gcttctccca ccaacgctct tctctccacc ggcaacggcc tcacgtgag cttcggcgcg 120
atgctcatcg atttctctcc caccgtctcc gngtctccc ttgcggaggc tccgggcttc 180
ntcaaggccc cggcgggcgc ncccgccaac gtcgncatcg ccgtcgcgag gctcgcgga 240
aaggcgcggt tcgtcggnaa gtcgngacg acgagt 276

<210> 2647

<211> 299

<212> nucleic acid

<213> Glycine max

<400> 2647

tacagcattc ttctgcaatt caaatcaaat tttaaacca tggcttctc caccaacgct 60
cttctccca cgggcaacgg cctcatctg agcttcggcg agatgctcat cgatttctc 120
cccaccgtct cggcggtgtc ccttgcgag gctccgggct tctcaaggc ccccgcggc 180
gcccccgcca acgtcgccat cgccgtcgc aggtcggcg gaaaggcggc gttcgtcgga 240
aagctcggcg acgacgagtt cgggcacatg ctggctggaa cctgaaggag aacgacgtc 299

<210> 2648

<211> 277

<212> nucleic acid

<213> Glycine max

<400> 2648

ctcgagccgc tcgtagcatt tcggcatcca aactaactct ctcatcttct acagcattct 60
tctgcaattc aatcaaatt ttcaaaccat ggcttctctc accaacgtc tctctccac 120
cggcaacggc ctcatctga gcttcggcga gatgctcatc gatttctctc ccaccgtctc 180
cggcggtgtc cttgcggagg ctccgggctt cctcaaggcc cccggcgcg cccccgcaa 240
cgctgccatc gccgtcgga ggctcggcg aaaggcg 277

<210> 2649

<211> 279

<212> nucleic acid

<213> Glycine max

<400> 2649

acggctggcg agaagacgac agaagggggg agaaggctga tttgatcaag gtcagtgatg 60
cggagcttga gttcctcaca ggaagtgaca agattgatga tgaatctgct ttgtcattgt 120
ggcaccccaa tttgaagttg ctccctgtca ctcttgggga acatggttcc agatactaca 180
ccaagagttt caaaggatcg gtagatgctt tccatgtcaa tacagttgat acaactgggtg 240
ccggtgattc ctttgttggg gctttattgg ccaagattg 279

<210> 2650

<211> 265

<212> nucleic acid

<213> Glycine max

<400> 2650

gatcaaggtc agtgatgcgg agcttgagtt cctcacagga agtgacaaga ttgatgatga 60
atctgctttg tcattgtggc accccaattt gaagttgctc cttgtcactc ttggggaaca 120
tggttccaga tactacacca agagtttcaa aggatcggta gatgctttcc atgtcaatac 180
agttgataca actggtgccg gtgattcctt tgttgggtgct ttattgccaa gattgtcgat 240
gatcagttca tacttgaaga tgaac 265

<210> 2651

<211> 230

<212> nucleic acid

<213> Glycine max

<400> 2651

tgagcatttg ggagaaggct gatttgatca aggtcagtga tgcggacttg agttcctcac 60
aggaagtgac aagattgatg atgaatctgc tttgtcattg tggcacccca atttgaagtt 120
gtccttgtc actcttgggg aacatggttc cagatactac accaagagtt tcaaaggatc 180
ggtagatgct tgccatgcaa tacagttgat acaactgggtg cccggtgatc 230

<210> 2652

<211> 241

<212> nucleic acid

<213> Glycine max

<400> 2652
 attatatttca ggctagaata ttccattatg gctccatcag cttgattgat gagccatgca 60
 agtcagctca ccttgctgct atgagcattg ccaaaaactc tggttgcatt ctatcatatg 120
 atccaaattt gagattggct ctatggcctt ctgcagacgc cgctcggaaa ggcataatgg 180
 atatatggga tcaagctgat gtcataaaga taagtgagga tgagattaca tttttgactg 240
 241
 g

<210> 2653
 <211> 262
 <212> nucleic acid
 <213> Glycine max

<400> 2653
 ctccatcagc ttgattgatg agccatgcaa gtcagctcac cttcctgcta tgagcattgc 60
 caaaaacctg gttgcattct atcatatgat ccaaatttga gattggctct atggccttct 120
 gcagactccg ctcggaagg cataatggat atatgggatc aagctgatgt tataaagata 180
 agtgaggatg agattacatt tttgactggg ggtgatgatc cttatgatga taatgttgtt 240
 262
 ttgaagaaac tttttcaccc aa

<210> 2654
 <211> 273
 <212> nucleic acid
 <213> Glycine max

<400> 2654
 attctcttac ccgtataaac tactattaac ttccaccaga acacgtttct ggtttcttct 60
 ggctctgcat ttaccatact ctgtttcttg gtttcaattc aatcacacac ctctttgccc 120
 tcatggccca ctttacctcc tcaggtaaat cagacaatct caccatagaa gactgtattg 180
 gaaaaagtgc gctggttggtg tgctttggtg aaattttaat agactttgtg ccaacagtgt 240
 273
 gtggagtgtc actagctgaa gcacctgctt tca

<210> 2655
 <211> 272
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (264)
 <223>
 <400> 2655
 caagctgatg ttataaagat aagtgaggat gagattacat ttttgactgg gggatgatgat 60
 ccttatgatg ataatgttgt ttgaagaaa ctttttcacc caaatctcaa gcttttaatt 120
 gttactgaag gttcacaggg ttgcagatat tacacgaagg catttaaggg cagggttgca 180
 ggtgttaaag ttaaacctgt agacacaact ggagctggcg atgcatttgt tagtgggatt 240
 ttatactgca tagcttctga ccanactatt tt 272
 <210> 2656
 <211> 128
 <212> nucleic acid
 <213> Glycine max
 <400> 2656
 gtacagataa gtgaggatga gattacattt ttgactgggg gtgatgatcc ttatgatgat 60
 aatgttgttt tgaagaaact ttttcaccca aatctcaagc ttttaattgt aactgaaggt 120
 tcacaggg 128
 <210> 2657
 <211> 239
 <212> nucleic acid
 <213> Glycine max
 <400> 2657
 ctcttcatta cacaacaaca aagtagttgt taatagcctc tgttttcttc ttgccaccaa 60
 aatctcacac cttccattgc atcatcattc ataaatggct catccacact catcagggtca 120
 atcccatgat ctcaaaaaag aagattgcaa ggaaacaaga tcaactgggtg tttgctttgg 180
 ggaaatgtta atagactttg ttccaacggt gggaggagtg tcaactggctg aagcaccgg 239
 <210> 2658
 <211> 229
 <212> nucleic acid
 <213> Glycine max
 <400> 2658

<400> 2664
aaacagtgtt ccaaaatcca aacacactct ctctcccat ggcgttgaac aatggcgtcc 60
ccgccaccgg caccggcctt catcgtcagc tntcggtag atgctcatcg acttcgtccc 120
caccgtctct ggcgtgtccc tggccgaggc cctggcttcc tcaaggcccc cggcggcgcc 180
cccgttaacg tcgcnatcgc cgtgtcgcgc ctccggcgga aagcgctttc gtcggcaagc 240
tcggcgacga cgagttcggc aaaatgntcg ccggantccc caagga 286

<210> 2665
<211> 304
<212> nucleic acid
<213> Glycine max

<400> 2665
gttttccatt acggatcaat cagtttgatc gtggagccat gcagatcagc acacttgaag 60
gcaatggaag tagccaagga atctgggtgc ttgtctcct atgaccccaa ccttcgtcta 120
cctttgtggc catcggtga ggaagctcgt aagcaaatac tgagcatttg ggagaaggct 180
gatttgatca aggtcagtga tgcggagctt gagttcctca caggaagtga caagattgat 240
gatgaatctg ctttgtcatt gtggcacccc aatttgaagt tgcctcttgt cactcttggg 300
gaac 304

<210> 2666
<211> 280
<212> nucleic acid
<213> Glycine max

<400> 2666
gttttccatt acggatcaat cagtttgatc gtggagccat gcagatcagc acacttgaag 60
gcaatggaag tagccaagga atctgggtgc ttgtctcct atgaccccaa ccttcgtcta 120
cctttgtcgc cttcggctga ggaagctcgt aagcaaatac tgagcatttg ggagaaggct 180
gatttgatca aggtcagtga tgcggacttg agttcctcac aggaagtga aagattgatg 240
atgaatctgc tttgtcattg tggcacccca atttgaagtt 280

<210> 2667
<211> 275

<212> nucleic acid
 <213> Glycine max

 <400> 2667

 caagattcat catcaatctt gtgacaggaa gtgacaagat tcatcatcaa tcttgtcact 60
 tcttgtgagg aactcaagct ccgcatcact gaccttgatc aaatcagcct agtgccaaat 120
 gctcagtatt tgcttacgag cttgtctcagc cgaaggcaca aaggttagacg aaggttgggg 180
 tcataggaga gcaagcacc agattccttg gctacttcca ttgccttcaa gtgtgctgat 240
 ctgcatggct ccacgatcaa actgattgat ccgta 275

<210> 2668
 <211> 247
 <212> nucleic acid
 <213> Glycine max

 <400> 2668

 ggatcaatca gtttgcctgt ggagccatgc agatcagcac acttgaaggc aatggaagta 60
 gccaaaggaat ctgggtgctt gctctcctat gacccaacc ttcgtctacc tttgtggcct 120
 tcggctgagg aagctcgtaa gcaaatactg agcatttggg agaaggctga tttgatcaag 180
 gtcagtgatg cggacttgag ttccctcacag gaagtgacaa gattgatgat gaatctgctt 240
 tgtcatt 247

<210> 2669
 <211> 245
 <212> nucleic acid
 <213> Glycine max

 <400> 2669

 ggatcaatca gtttgcctgt ggagccatgc agatcagcac acttgaaggc aatggaagta 60
 gccaaaggaat ctgggtcttg ctctcctatg accccaacct tcgtctacct ttgttgcctt 120
 cggctgagga agctcgtaag caaatactga gcatttggga gaaggctgat ttgatcaagg 180
 tcagtgatgc ggagcttgag ttccctcacag gaagtgacaa gattgatgat gaatctgctt 240
 tgtca 245

<210> 2670
 <211> 253

<212> nucleic acid
<213> Glycine max

<400> 2670

gtgaccctac gcgccgacgg ggagcgtgag ttcattgttct acagaaaccc cagcgccgac 60
atgctcctca agcccgaaga actcaatctc gaactcatca gatctgcaaa agttttccat 120
tacggatcaa tcagtttgat cgtggagcca tgcagatcag cacacttgaa ggcaatggaa 180
gtagccaagg aatctgggtg cttgctctcc tatgacccca accttcgtct acctttgtgg 240
ccttcggctg agg 253

<210> 2671
<211> 234
<212> nucleic acid
<213> Glycine max

<400> 2671

caatctcgaa ctcatcagat ctgcaaaaagt tttccattac ggatcaatca gtttgatcgt 60
ggagccatgc agatcagcac acttgaaggc aatggaagta gccaaggaat ctgggtgctt 120
gctctcctat gaccccaacc ttcgtctacc tttgtggcct tcggctgagg aagctcgtaa 180
gcaaatactg agcatttggg agaaggctga tttgatcaag gtcagtgatg cgga 234

<210> 2672
<211> 263
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (237)
<223>

<400> 2672

ctcaatctcg aactcatcag atctgcaaaa gttttccatt acggatcaat cagtttgatc 60
gtggagccat gcagatcagc acacttgaag gcaatggaag tagccaagga atctgggtgc 120
ttgctctcct atgaccccaa ccttcgtcta cccttggtgc cttcggctga ggaagctcgt 180
aagcaaatac tgagcatttg ggagaaggct gatttgatca aggtcagtga tgcgganttg 240
agttcctcac aggaagtgc aag 263

<210> 2673
 <211> 229
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (173), (177)
 <223> unsure at all n locations

<400> 2673

gctcctcaag cccgaagaac tcaatctcga actcatcaga tctgcaaaag ttttccatta 60
 cggatcaatc agtttgatcg tggagccatg cagatcagca cacttgaagg caatggaagt 120
 agccaaggaa tctgggtgct tgctctccta tgacccaac ctctgtctac ctntgtngcc 180
 ttgggtgag gaagctcgta agcaaatact gagcatttgg gagaaggct 229

<210> 2674
 <211> 256
 <212> nucleic acid
 <213> Glycine max

<400> 2674

ggatcaatca gtttgatcgt ggagccatgc agatcagcac acttgaaggc aatggaagta 60
 gccaaaggaat ctgggtgctt gctctcctat gacccaacc ttctgtctacc tttgtgcgcc 120
 ttgggtgag gaagctcgta agcaaatact gagcatttgg gagaacgctg atttgatcaa 180
 ggtcagtgat gcggacttga gttcctcaca ggaagtgaca agattgatga tgaatctgct 240
 ttgtcattgt ggcacc 256

<210> 2675
 <211> 323
 <212> nucleic acid
 <213> Glycine max

<400> 2675

ttgggtcga gaatggcgca cgcaccgcc tggccttcgt gacctacgc gccgacgggg 60
 agcgatagtt catgttctac agaaacccca gcgtcgacat gctcctcaag cccgaagaac 120
 tcaatctcga actcatcaga tctgcaaaag ttttcaatta cggatcaatc agtttgatcg 180
 tggagccatg cagatcagca cacttgaagg caatggaagt agccaaggaa tctgggtgct 240

tgtcttcta tgacccaac ctctgtctac ctttgtggcc ttgggtgag gaagctcgt 300
agcaaatact gagcatttgg gag 323

<210> 2676
<211> 380
<212> nucleic acid
<213> Glycine max

<400> 2676

aaggctttgg ggagatgatg atcaatttgg tccctacagt agcaagagtg tcccttgag 60
atgcaactgc ctataagaaa ttcccttctg gagccactgc caatgttgct gttggaattt 120
gtagactaag aggtcagca gctttcattg gcaagggtgg aaatgatgaa ttggacatc 180
tgttatctga tattctgaaa caaatgggtg ttgacaattc tggcctgctc ttgatgatc 240
atgcaaggac agcgttggga atttatgctc ttaagagtaa tggagaacct gaattcatgt 300
tttaccgaaa tccaagttct gatgtgctcc ttctgctga tgaaattgat atggacctca 360
taaagaaagc acaatatttc 380

<210> 2677
<211> 336
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (172)
<223>

<400> 2677

gtcccaaca gtgtccaaat ccaacgcaca ctttttcccc catgggggttg aacaatggcg 60
tccccgccac tggcaccggc ctcatcgta gcttcggcga gatgctcatc gacttcgtcc 120
ccaccgtctc cggcgtgtcc ctggccgagg cccctggett cctcaaggcc cncggcggcg 180
ccccagccaa cgtcgccatc gccgtgtcgc gactcggcgg caaagccgcc ttctcggca 240
aactcgggga cgacgagttc ggccacatgc tcgccggaat ccttaaggag aacggtgtcc 300
gcgccgacgg cattaacttc gaccagggtg cacgca 336

<210> 2678

<211> 339
 <212> nucleic acid
 <213> Glycine max

<400> 2678

gggagcgtga gttcatgttc tacagaaacc ccagcgccga catgctcctc aagcccgaag 60
 aactcaatct cgaactcatc agatctgcaa aagttttcca ttacggatca atcagtttga 120
 tcgtggagcc atgcagatca gcacacttga aggcaatgga agtagccaag gaatctgggt 180
 gcttgetctc ctatgacccc aaccttcgtc tacctttgtg gccttcggct gaggaagctc 240
 gtaagcaaat actgagcatt tgggagaaaag ctgatttgat caaggtcagt gatgcggaag 300
 ctgagttcct cacaggaagt gacaagattg atgatgaat 339

<210> 2679
 <211> 271
 <212> nucleic acid
 <213> Glycine max

<400> 2679

cagccgcaga cagagatgga agctgtgtgt ggaagtgttt gggtcacatc ctctcttcca 60
 cgctcaccca agtcactct ctctctattc cgctctactc atcaacacct aacagcattt 120
 ccttcacaat cccatctttt cttatatcac cctcctccct atgctaattgc taaaaccctc 180
 cgcgcagaa cctcctccaa acccgccatt ttccttcccc acttaattgc ttctctggaa 240
 caagttgacc agacttacat aatgggtcaag c 271

<210> 2680
 <211> 391
 <212> nucleic acid
 <213> Glycine max

<400> 2680

acgcgtccag tacagctggc caaaaaacga ccgaaggggg agataccaag gaaatttggt 60
 tcttacctct taccgcgaga cagatgaaaag aagggaaata catggaagct gtgtgtgcaa 120
 gtggaagcag tgtttgggtc acatcctcgc ttacacgcac acccaagatc aactccctc 180
 tattccgcgc cagtttagcac cagctaacag catttccttc acaatccctt cttttctcct 240
 atcacccttc tcgctatgct aatgctagaa ccctccgcgc cacaacctcc tccagaccca 300

ttttccttcc ccacataagt gcatcactgg aacaaattta ctacacttat attatgggtca 360
agccccgacgg cgtcaaacgt ggcctcgtgg g 391

<210> 2681
<211> 405
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (383)
<223>

<400> 2681

agacggctgc gagaagacga cagaaggggg gttctttctta gccgtagttt tctctcacag 60
ccgcagacag agatggaagc tgtgtgtgga agtgtttggg tcacatcctc tcttccacgc 120
tcaccaagt ccactctctc tctattccgc tctactcatc aacacctaac agcatttcct 180
tcacaatccc atcttttctt atatcaccct cctccctatg ctaattgctaa aaccctccgc 240
gccagaacct cctccaaacc cgccattttc cttccccact taattgcttc tctggaacaa 300
gttgaccaga cttacataat ggtcaagccc gacggcgtgc aacgtggcct cgtgggagaa 360
attacttcta ggtttgagaa ganagggttt aagtcaactg gcttg 405

<210> 2682
<211> 237
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (206), (227)
<223> unsure at all n locations

<400> 2682

gaagcacttt tggatgttgc gtcattgtctt gcaagcagtg ctcagaccca gaagggatgg 60
aatcgcataa tatttgagaa gccatttggc tttgatgcac tttcttccca taggctgaca 120
caatatcttc tttcaaactt tcaggaaaag caaatatata gaattgatca tctactagga 180
aggatatctc atgaaaactc tacagnttta agggtttcaa agcgagnttt tgagcca 237

<210> 2683

<211> 255
 <212> nucleic acid
 <213> Glycine max

<400> 2683

ctgtgttgag ttttccaacc ttaaaaagac tctctcttct ctctcgctct ttctctccct 60
 gaagcaaaac aacattagca tcaaaaccag agtggttcta gtaatccggt gctgctagag 120
 gatgggaact agtgaatggc atatcgagcg aagatctagc ttcggcactg aatccccctt 180
 agcaatatag gcacgcaatg tgctgaaac tcgtcactct ctattgtcgt gcttggcgct 240
 tctggggatc ttgct 255

<210> 2684
 <211> 260
 <212> nucleic acid
 <213> Glycine max

<400> 2684

tatggaatcg cataatat t gataagccat ttggctttga tgcactttct tcccataggc 60
 tgacacaata tcttctttca aactttcagg aaaagcagat atatagaatt gatcatctac 120
 taggaaggaa tctcattgaa aatcttacag ttttaagggt ttcaaactta gtttttgagc 180
 cactttggag tcgtacttat atagataatg tacagggtcat tttatcagag gacttggctg 240
 tgcacactgg aaatattcaa 260

<210> 2685
 <211> 279
 <212> nucleic acid
 <213> Glycine max

<400> 2685

tacggctgcy acaagacgac agaaggggag tgcgtgaaga aaacaccaac tgttttgagt 60
 tttccaacct taaaaagact ctctcttctc tctctctctt tctctacctg aagcaaaaca 120
 acattagcat caaaaccaga gtgggttctag taatccggtg ctgctagagg atgcgaacta 180
 gtgaatggca tatcgagcga agatctagct tcggcactga atccccctta gcaagagagg 240
 caggaaatgt gcctgaaact gggtcactct ctattgttg 279

<210> 2686

<211> 137
 <212> nucleic acid
 <213> Glycine max

<400> 2686
 ccaggcagta tataagacat ggacagttga tattctcaga agattttggc actgaaggac 60
 gtggcgggta ctttgaccat tatggtatca tgagagacat tatgcagaat catttacttc 120
 aaatactagc actcttt 137

<210> 2687
 <211> 284
 <212> nucleic acid
 <213> Glycine max

<400> 2687
 caaccttaaa agactctctt ttctctctct gaactctgaa gcaaaacaac attaccagag 60
 tgggttctagt aattcagtgc tgctagaaga tggaaactag tgaatggcat atcgagcgaa 120
 gatctagctt cggctctgaa tcccccttag caagagaggc aggaaatgtg cctgaaactg 180
 ggtcactctc tattgtggtg cttggtgctt ctggtgatct tgctaagaag aagacatttc 240
 ctgcactttt ccacctatac ctgcagggat tcttaccacc agat 284

<210> 2688
 <211> 242
 <212> nucleic acid
 <213> Glycine max

<400> 2688
 cttttctctc tctgaactct gaagctaaac aacattacca gagtggttct agtaattcag 60
 tgctgctaga agatggaaac tagtgaatgg catatcgagc gaagatctag cttcggctct 120
 gaatccccct agcaagagag gcaggaaatg tgcttgaaac tgggtcactc tctattgtgg 180
 tgcttggtgc ttctggtgat cttgctaaga agaagacatt tctgcactt ttccacctat 240
 ac 242

<210> 2689
 <211> 194
 <212> nucleic acid
 <213> Glycine max

<400> 2689

tgttttcagct aactctgctt cacttggttaa ttgagtgggt ctagtaatcc ggtgctgcta 60
gaggatggga actagtgaat ggcataatcga gcgaagatct agcttcggca ctgaatcccc 120
cttagcaaga tatgcaggaa atgtgcttga aactgggtca ctctctattg ttgtgcttgg 180
cgcttctggg gatc 194

<210> 2690

<211> 286

<212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (100), (272)

<223> unsure at all n locations

<400> 2690

cttactcctc ctgcagttga ggcaatatca gagagttttg gagagtggat tatcaaaggt 60
ttaaagaagg aaaaaggata ccctgtagag aatgttagan cgtctctccg ggcgtgaccc 120
tcgagtcac agggtcceaa attgagcgtc gcagttttgc aggtctggct cgcgccggtt 180
gcatggtgta tgatatggga ctagccacca ccccggtttg tttcatgagc atttgttgcc 240
tccattgcct atgatgcttc aatgatgatg anagcttctc acttgc 286

<210> 2691

<211> 269

<212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (97)

<223>

<400> 2691

gtcttgctcg atcaatgcc acaagcgggt ctctggaccg tgttgctaaa aaattgaacc 60
tccctttctt tgagggtccc actggttgga aattttntgg gaatcttatg gatgctggga 120
atgtgtccgt tgcggggaag agagttttgg aacaggttct gatcacattc gtgagaaaga 180
tggcatctgg gctgtcttag cttggctttc tattattgca catcgcaaca aagacaagaa 240

tcccggggag aaattgatct ccgtatctg

269

<210> 2692
<211> 289
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (40), (54), (70), (99), (106), (112), (127), (166), (202),
(237)... (238), (254)
<223> unsure at all n locations

<400> 2692

cttgctcgat caatgccaac aagtgggtgct ttggaccgtn ttgctgaaaa attngacctc 60
cctttctgtn aggcattgctt gattttttctt acaatttcnt tcttcntaaa tnattaatat 120
aaatganata ggcttcacat attttttagac agttctgaaa taacanaaga tggacccggg 180
attcagggcc ccactgggtg gnaattttttt gggaatctta tggatgctgg gaatttnncg 240
gtttgcgggg aagnaagttt ggaacagggt ctgaccacat gcgtgagat 289

<210> 2693
<211> 298
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (2), (20), (39), (51), (101), (141), (151)
<223> unsure at all n locations

<400> 2693

tngtcaacat tctgtatgcn gaaaatggac ctgattttng agcagccagt natggggatg 60
gtgatagaaa tatgatttta ggaagaagtt tcttgtaact nccttcagac tctgtagcag 120
ttattgcagc cattgcaaga naagcgattc natacttcaa gaacggagtt aaggggtcttg 180
ctcgatcaat gccacaagc ggtgctctgg accgtgttgc taaaaaattg aacctccctt 240
tctttgaggt cccactgggt tggaaaatttt ttgggaatct tatggatgct gggaattt 298

<210> 2694
<211> 264
<212> nucleic acid
<213> Glycine max

<220>
 <221> unsure
 <222> (6), (195), (263)
 <223> unsure at all n locations

<400> 2694

tttgttaggt tttttgtcac tccttcagat tccgtggcca ttatcgctgc aaatgcactt 60
 gaagctatac catacttttc tgctgggtta aagggtgttg ccaggagcat gccaacctct 120
 gctgccctgg atgttggtgc caaattctga atttgaaatt ttttgaggtc cccacgggtt 180
 ggaagttctt ggtantttta tggatgctgg attgttcagt ctgtggtgaa gaaagtttgg 240
 gatggttcga ccagttcgtg agna 264

<210> 2695
 <211> 250
 <212> nucleic acid
 <213> Glycine max

<400> 2695

cacattcgtg agacagatgg catctgggct gtttttagcta gattttctat tattgcacat 60
 cgcaacaaag acaagaatcc cggggagaaa ttgatctccg tatctgacgt tgtgatggag 120
 cactgggcac ttatggaagg aatttcttct ctagatatga ctacgaggaa tgtgaatctg 180
 aaggtgccaa taagatgata gaatacctac gagatatttt gtctaagagc aagcctggtg 240
 atcagtatgg 250

<210> 2696
 <211> 340
 <212> nucleic acid
 <213> Glycine max

<400> 2696

cacacctgcc gccagtcaca tcatccggat acgaaaggcg accggtggca tcctcctcac 60
 tgccagccac aacctggtg gccccgatga ggactttggc atgaagtaca acctcgccaa 120
 cggtgccccg gctcccgaga gcgtcaccaa caagatctac gaaacctcca agacctctc 180
 gtcgtacaag atcgccgaac tccccgacat cgacttgagc acaattggca cacaaaagta 240
 tggcagcctc gaggttgaga tcgtccactc aacagaggac tacctgaaga tgctcaagga 300

catcttcgac tttgacctca tcaagtcgtt cctcaagcag 340

<210> 2697
 <211> 228
 <212> nucleic acid
 <213> Glycine max

<400> 2697

ctggtgggcc cgacaatgat ttcggcatca agtacaacgt caacaacggt ggtccagctc 60
 cagagagtgt gaccgacaag atcttccaac gcaccaagga gatttccgcc tacaagggtcc 120
 ttgatgctgg cgagcttgac ctatccaaga ttagtagctc cacctatggt cccatggagg 180
 ttgagatcgt cgactcgtc aaggactata ttaccctact caaggaca 228

<210> 2698
 <211> 231
 <212> nucleic acid
 <213> Glycine max

<400> 2698

atttagtaaa agcagttcgc aaggcagctg gaaacataga gaaaccattg gagggtttcc 60
 atatagttgt tgatgcaggc aatggagcag gaggcctttt tgcagcaaag gttctggaac 120
 ctctgggggc aataacttct gggagtcaat ttttggagcc tgatggcttg tttccaaatc 180
 atatcccaaa tcttgaggac aaaacagcaa tgaaagctat aacccaagca g 231

<210> 2699
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<400> 2699

atcagatctg ccagatgtgg atatcaccac aacaggtggt acaagcttta caggccctga 60
 aggaccattt gatgttgagg tttttgattc agcaagtgat tatataaaat tgatgaagtc 120
 aatTTTTgat tttgaatcta tcaggaaaact gctgtcatct cctaaattca cattctgtta 180
 tgatgcacta catgggggtg gtggagcata tgcaaagagt atatttTgtg atgagcttgg 240
 ggcacaagaa agctcttttac tgaac 265

<210> 2700

<211> 266
 <212> nucleic acid
 <213> Glycine max

 <400> 2700

 cgagctgatg gatccagggc aacaggtgca tttatactga cagcaagtca caatcctggt 60
 ggccctcatg aggattttgg aattaaatat aatatggaaa acggtggacc tgcaccagag 120
 ggaattactg acaagatata tgaaaacaca acaacaatta atgagtactt gattgcatca 180
 gatctgccag atctggatat caccacaaca ggtgttacaa gctttacagg ccctgaagga 240
 ccatttgatg ttgaggtttt tgattc 266

<210> 2701
 <211> 282
 <212> nucleic acid
 <213> Glycine max

 <400> 2701

 gtttccaaat catatcccaa atcctgagga caaaacagca atgaaagcta taaccaagc 60
 agtccttgat acaaagctg atcttggat tatctttgat actgatgtgg acagatctgc 120
 tgctgtggat ttactggcc gtgaattcaa caggaatcgt ttaattgcct taatggcagc 180
 tattgttctt gaggaacatc ctggaacaac tattgtcaca gacagtgtga cttctgatgg 240
 gcttaccacg tttattgaga agacacttgg tggaagacac ca 282

<210> 2702
 <211> 277
 <212> nucleic acid
 <213> Glycine max

 <400> 2702

 cacattttat gctccactg ggacaacctc aataaggaag atcacataaa aagtaacaca 60
 cgttatattt ttattgagaa gcagcaccac aagcattgaa gaaacttatc ttagttctgt 120
 gttgtttaat tgtctgtttg atttgagtgg tttccaatta cagggtgtgc ttagcttggc 180
 tttctattat tgcacatcgc acaaagaca agaatcccgg ggagaaattg atctccgtat 240
 ctgacgttgt gatggagcac tgggcaactt atggaag 277

<210> 2703

<211> 261
 <212> nucleic acid
 <213> Glycine max

 <400> 2703

 gcattgggct acttatgggc gccattatta tactcgatat gactatgaaa acgtggatgc 60
 aggtgcagca aaggaactga tggcatatgt ggtcaagctg cagtcctcac tttcagaagt 120
 caatcagatt gttaagggga taaggtcaga tgtttcgaat gttgtccacg gtgatgaatt 180
 tgagtacaat gatcctgtgg atggttccat ctcatcacat cagggaatcc gatatttgtt 240
 tgaggatgga tcacgattga t 261

<210> 2704
 <211> 300
 <212> nucleic acid
 <213> Glycine max

 <400> 2704

 tctcgagccg aatcggctcg agtacggctg cgagaagacg tcagaacggg tggacagatc 60
 tgctgctgtg gatttcactg gccgtgaatt caacaggaat cgtttaattg ccttaatggc 120
 agctattgtt cttgaggaac atcctggaac aactattgtc acagacagtg tgacttctga 180
 tgggcttacc acgtttattg agaagaaact tgggtggcaga caccatcggg tcaaaagagg 240
 ctacaaagat gtgattgatg aagctattcg tttgaattct attggtgagg agtcacattt 300

<210> 2705
 <211> 279
 <212> nucleic acid
 <213> Glycine max

 <220>
 <221> unsure
 <222> (55), (170)
 <223> unsure at all n locations

 <400> 2705

ccaaaggaag acttcggagg aggacaccca gacccaatt tgacatatgc aaaanagttg 60
 gttgctcgta tgggattggg caaatccgaa cccaagaag agccccaga gtttgggtgc 120
 gcttctgatg gtgatgcaga tcgcaacatg gttcttggtg aaaggttttn tgtcactcct 180
 tcagattccg tggccattat cgctgcaaat gctgttgaag ctataccata cttttctgct 240

ggtttaaagg gtgttgccag gagcatgcc aacctctgct 279

<210> 2706
<211> 270
<212> nucleic acid
<213> Glycine max

<400> 2706

ggagcatatg caaagagtat atttgtggat gagcttgggg cacaagaaag ctctttactg 60
aactgtacac caaaggaaga ctttggagga ggacaccag accccaattt gacatatgca 120
aaagagttgg ttgctcgtat gggattgggc aaatccgaac cacaagatga tccccagag 180
tttggtgctg cttctgatgg tgatgcagat cgcaacatga tacttggtaa aaggtttttt 240
gtcactcctt cagattccgt ggccattatc 270

<210> 2707
<211> 272
<212> nucleic acid
<213> Glycine max

<400> 2707

gcactacatg gggttggtgg agcatatgca aagagtatat ttgtggatga gcttggggca 60
caagaaagct ctttactgaa ctgtacacca aaggaagact ttggaggagg acaccagac 120
cccaatttga catatgcaaa agagttgggt gctcgtatgg gattgggcaa atccgaacca 180
caagatgatc cccagagtt tgggtgctgct tctgatggtg atgcagatcg caacatgata 240
cttggtaaaa ggttttttgt cactccttca ga 272

<210> 2708
<211> 263
<212> nucleic acid
<213> Glycine max

<400> 2708

gcttggagca caagaaagct ctttactgaa ctgtacacca aaggaagact tcggaggagg 60
acaccagac cccaatttga catatgcaaa agagttgggt gctcgtatgg gattgggcaa 120
atccgaaccc caagaagagc cccagagtt tgggtgctgct tctgatggtg atgcagatcg 180
caacatgggt cttggtaaaa ggttttttgt cactccttca gattccgtgg ccattatcgc 240

tgcaaagtgt gttgaagcta tac 263

<210> 2709
<211> 269
<212> nucleic acid
<213> Glycine max

<400> 2709

aaaattgatg aagtcaattt ttgattttga atctatcagg aaactgctgt catctcctaa 60
attcacattc tgttatgatg cacctacatg gggttggtgg agcttatgca aagagtattt 120
ttgtggatga gcttggagca caagaaagct ctttactgaa ctgtacacca aaggaagact 180
tctgaggagg ataccagac tccagtttga catatgcaaa agagtttggt gctcgtatgg 240
gattgggcaa atccggaccc caagaagag 269

<210> 2710
<211> 283
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (4), (12), (18), (37), (109) ... (110), (160), (271)
<223> unsure at all n locations

<400> 2710

ggcnagtgat tntataanat tgatgaagtc aattttngat tttgaatcta tcaggaaact 60
gctgtcatct cctaaattcc acattctggt atgatgcact acatggggnn ggtggagcat 120
atgcaaagag tatttttgtg gatgagctgg agcacaagan agctctttac tgaactgtac 180
accaaaggaa gacttcggag gaggacaccc agacccaat ttgacatatg caaaagcagt 240
tggttgctcg tatgggattg ggcaaaccg naccccaaga aga 283

<210> 2711
<211> 263
<212> nucleic acid
<213> Glycine max

<400> 2711

atgagaagga tccatcaaag attgggagac tttcaaatga agcccttgct cctcttgtgg 60

aagttgcatt gaaactttcg aagatggaag aattcactgg tcgatccgct ccaacagtca 120
 ttacatgaac acatacaggt ggaaggtggt tagatcctga agtttctccc agtcatttct 180
 tctttgttca gtttcttacg gatggccgaa cactagtgtt ggttggttgc agcctttgct 240
 atgggcactt gagtggaatt tga 263

<210> 2712
 <211> 308
 <212> nucleic acid
 <213> Glycine max

<400> 2712

gagaaggatc catcaaagat tgggagactt tcaaatgaag cccttgctcc tcttgtggaa 60
 gttgcattga aactttcgaa gatggaagaa ttactggtc gatccgctcc aacagtcatt 120
 acatgaacac atacaggtgg aaggtggtta gatcctgaag tttctcccag tcatttcttc 180
 tttgttcagt ttcttacgga tggccgaaca ctagtggttg ttgtttgcag cctttgctat 240
 gggcatgagt ggatttgatc agttacttat caaaatttga tgtgctgaat aagttgcaac 300
 tgccgagt 308

<210> 2713
 <211> 285
 <212> nucleic acid
 <213> Glycine max

<400> 2713

caacaattcg attatacatt gagcaatatg agaaggatcc atcaaagatt gggagacttt 60
 caaacgaagc acttgctcct gcttgtggaa gttgcgttga aactttcgaa gatggaagaa 120
 ttactggtc gatccgctcc aacagtcatt aatgaacaca ttcaagtgga aggtgggttag 180
 atcctgaagc ttctcccagt gcatttcatt tcttctttgt ccagtatctt acggatagcc 240
 gaacagtaga tttggttggt tgcagccttt gctatgggaa attga 285

<210> 2714
 <211> 260
 <212> nucleic acid
 <213> Glycine max

<400> 2714

gccagtcacg gtgctcttca atgtttcacg cgtagagacc actcccttcg atggccagaa 60
gctgaaccc tctgggtctcc gcaacaagggt gaaagtgttc gtgcaacctc attacctcca 120
taactttggt cagtcaacat tcaatgcatt aactgtggaa aaagttagag gtgcaacgct 180
agttgtatct ggtgatggtc gttatTTTTT aaaggtagct attcagatta taactaaaat 240
gtcagcagca aatggagtaa 260

<210> 2715
<211> 252
<212> nucleic acid
<213> Glycine max

<400> 2715

cgggtagcca gccagtcacg gtgctcttca atgtttcacg cgtagagacc actcccttcg 60
atggccagaa gcttgaaccc tctgggtctcc gcaagaagggt gaaagtgttc gtgcaacctc 120
attacctcct aactttgttc agtcaacatt caatgcatta actgtggaaa aagttagagg 180
tgcaacgcta gttgtatctg gtgatggtcg ttatTTTTTca aaggaagcta ttcagattat 240
aactaaaatg tc 252

<210> 2716
<211> 246
<212> nucleic acid
<213> Glycine max

<400> 2716

gtttttcttt gttccggtag ccagccagcc agccatgggt ctcttcaatg tttcacgcgt 60
tgagaccacc cctccgatg cacacaagcc tggaacctct cgtctccgca agaagggtgaa 120
agtattcgtg caacctcctt acctccataa ctttgtccag cccacattca atgccttaac 180
tgtggaaaaa gtttagagggt caacgctagt tgtatctggt gatggccgtt atttctcaaa 240
ggaagc 246

<210> 2717
<211> 262
<212> nucleic acid
<213> Glycine max

<400> 2717

gctaagctaa ctgaactctc tctcggttgt cccttggcct ctcgctctat aaatacacat 60
 cgcacatttc tctcacttgc acattgaaat ctgaaccttc cggatttcgt ttgctttgt 120
 tcaggtagcc agccagtcac ggtgctcttc aatgtttcac gcgtagagac cactcccttc 180
 gatggccaga agcctggaac ctctggtctc cgcaagaagg tgaaagtgtt cgtgcaacct 240
 cattacctcc ataactttgt tcagtcaa 268

<210> 2721
 <211> 240
 <212> nucleic acid
 <213> Glycine max

<400> 2721

acggctgcca gaagacgaca gaagggggca cattgaaatc tgaaccttcc ggatttcggt 60
 ttgctttgtt caggtagcca gccagtcacg gtgctcttca atgtttcacg cgtagagacc 120
 actcccttcg atggccagaa gcctggaacc tctggtctcc gcaagaagggt gaaagtgttc 180
 gtgcaacctc attacctcca taactttgtt cagtcaacat tcaatgcatt aactgtggaa 240

<210> 2722
 <211> 248
 <212> nucleic acid
 <213> Glycine max

<400> 2722

acggctgcta gaagacgaca gaagggggca cattgaaatc tgaaccttcc ggatttcggt 60
 ttgctttgtt caggtagcca gccagtcacg gtgctcttca atgtttcacg cgtagagacc 120
 actcccttcg atggcctgaa gcctggaacc tctggtctcc gctagaagggt gaaagtgttc 180
 gtgcaacctc attacctcca taactttgtt cagtcaagggt ttaatgcatt aactgtggaa 240
 aaagttag 248

<210> 2723
 <211> 244
 <212> nucleic acid
 <213> Glycine max

<400> 2723

tgctcttcaa tgtttcacgc gtagagactc atgactgggt ggctacctga acaaagcaaa 60

tttcacgcgt tgagaccact cccttcgatg gacagaagcc tggaacctct ggtctccgca 240
agaagggtgtc agtattcgtg caatctcatt acct 274

<210> 2727
<211> 237
<212> nucleic acid
<213> Glycine max

<400> 2727

catcaactgc taagctaact gaactctctc tcgttggtcc cttggcctct cgtctataa 60
atacacatcg catcattctc tcacttgcaa attgaaatct ggaacttccg gatttcgttt 120
tgctttgttc aggtagccag ccagtcatgg tgctcttcaa tgtttcacgc gtagagacca 180
ctcccttcga tggccagaag cctggaacct ctggtctccg caagagggtga agtggtc 237

<210> 2728
<211> 272
<212> nucleic acid
<213> Glycine max

<400> 2728

gctggattat gttcagtctg tggatgaagaa agttttggga ctggttctga ccatattcgt 60
gagaaagatg gaatatgggc agttttggca tggctatcta tacttgcata tagaataaaag 120
ataaacttga agacaagctt gtcactgttg aagacatagt tcgccagcat tgggctactt 180
atgggcgcca ttattatact cgatatgact atgaaaatgt ggatgcaggt gcagcaaagg 240
aactgatggc atatttggtc aagctgcagt cc 272

<210> 2729
<211> 197
<212> nucleic acid
<213> Glycine max

<400> 2729

gctggattat gttcagtctg tggatgaagaa agttttggga ctggttctga ccatattcgt 60
gagaaagatg gaatctgggc agttttggcc tggctatcta tacttgcata taaaaataaa 120
gataaacttg aagacaagct tgcactgtt gaagacatag ttcgccagca ttgggctact 180
tatgggcgcc attatta 197

<210> 2730
 <211> 237
 <212> nucleic acid
 <213> Glycine max

 <400> 2730

 cctcgagccg attcgggtcga gtggaagttc tttggtaatt taaacgatgc tggattatga 60
 ctcagtctgt ggtgaagaaa cttttgggac tggttctgac catattcgtg agaaagatgg 120
 aatctgggca gttttggcct ggctatctat acttgcataat aaaaataaag ataaacttga 180
 agacaagctt gtcactgttg aagacatagt tcgccagcat tgggctactt atggggcg 237

<210> 2731
 <211> 257
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (50)
 <223>

<400> 2731

 ggaatctggg cagttttggc ctggctatct atacttgcata ataaaaatan agataaactt 60
 gaagacaagc ttgtcactgt tgaagacata gtccgccagc attgggctac ttatggggcg 120
 cattattata ctcgatatga ctatgaaaat gtggatgcag gtgcagcaaa ggaactgatg 180
 gcatatttgg tcaagctgca gtcctcactt tcagaagtca atcagattat taaggggata 240
 aggtcagatg tttcgaa 257

<210> 2732
 <211> 266
 <212> nucleic acid
 <213> Glycine max

<400> 2732

 gtacaatgat cctgtggatg gttccatctc atcatatcag ggaatccgat atttgtttga 60
 ggatggatca cgattgattt tccgcctatc tggaactgga tcagaaggtg caacaattcg 120
 actatacatt gagcactatg agaaggatcc atcaaagatt gggagacttt caaatgaagc 180
 ccttgctcct cttgtggaag ttgcattgaa actttcgaag atggaagaat tcaactggtcg 240

atccgctcca acagtcatta catgaa

266

<210> 2733
<211> 243
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (229)
<223>

<400> 2733

gtacaatgat cctgtggatg gttccatctc atcacatcag ggaatccgat atttgtttga 60

ggatggatca cgattgattt tccgcctatc tggaactgga tcagaagggtg caacaattcg 120

attatacatt gagcaatatg agaaggatcc atcaaagatt gggagacttt caaacgaagc 180

acttgctcct cttgtggaag ttgcgttgaa actttcgaag atggaagant tcaactggtcg 240

atc 243

<210> 2734
<211> 272
<212> nucleic acid
<213> Glycine max

<400> 2734

tacggctgcy agaagacgac agaaggggga taaggtcaga tgtttcgaat gttgttcacg 60

gtgatgaatt tgagtacaat gatcctgtgg atggttccat ctcatcacat cagggaatcc 120

gatatttggt tgaggatgga tcacgattga ttttccgcct atctggaact ggatcagaag 180

gtgcaacaat tcgactatac attgagcaat atgagaagga tccatcaaag attgggagac 240

tttcaaata agcccttgct cctcttggtg aa 272

<210> 2735
<211> 288
<212> nucleic acid
<213> Glycine max

<400> 2735

ctccgtctta cggcaattga aggaagcact atctctgcaa cttccgtcac attcacatgg 60

cagcttctgc atctgctact gctgtgccat atctagacaa gacagatttt ctaaagcttc 120
 aaaatggcag tgacattcgt ggtgtggctg ttgatgggtg tgagggagag ccagttaacc 180
 tcaactgaacc tgttgccgaa gcaataggag ctgcttttgc tgcattggta gtggagaaaa 240
 agaaagctga tgcttctcag catttgagag tttctattgg tcatgatt 288

<210> 2736
 <211> 368
 <212> nucleic acid
 <213> Glycine max

<400> 2736

atcctggaac aactattgtc acagacagtg tgacttctga tgggcttacc acgtttattg 60
 agaagaaact tgggtggcaga caccatcggg tcaaaaagagg ctacaaaaat gtgattgatg 120
 aagctattcg tttgaattct attgggtgagg agtcacattt ggcaattgaa actagtggac 180
 atggagctct caaggaaaat cattggcttg atgatggcgc atacctaatt gtcaagatct 240
 taaataaact tgcttctgca agagcttctg gaaaggggtg tggaagtaag gttttgactg 300
 atctaataga cggacttcag gaaccagatt ttgctgtaga actgagatta aagataaacc 360
 aaaacat 368

<210> 2737
 <211> 414
 <212> nucleic acid
 <213> Glycine max

<400> 2737

caagcccatt gatggacaaa agactggaac cagtgggctt cgaaagaagg tgaaagtgtt 60
 tatgcaagac aattaccttg caaattggat ccaggctctg tttaattcat tgccaccgga 120
 ggactacaag aatggtttgt tgggtgttggg aggtgatggg cgatacttta atcaggaagc 180
 tgcacagata ataataaaaa ttgctgctgg aaatgggtgtt ggaaaaattc tggttggaaa 240
 ggaagggtatt ttgtcaacac cagccgtttc tgctgttata agaaagagaa aggcaaattg 300
 tggatttatt atgagtgcaa gccataatcc tggcggacct gaatatgatt ggggtattaa 360
 gtttaattac agcagtggac aacctgcacc agaattccatc actgacaaga tttta 414

<210> 2738

gcgaattcag ctcgagcaat taactgttaa gctaactgaa ctctccctct gtccctgcctc 60
 attccttttg cctctcacta caaatacaca tctcatctca tccgtctctc actttttaatt 120
 tttctctgca atctgaacct tccggatttc gctattcttt gttccggtag ccagtcagcc 180
 agccatcgtg ctctacaatg tttcacgcgt tgagaccact cccttcgatg gacagaagcc 240
 tggaacctct ggtctcctca cgaacgtgac cgtattcgtg caacctcatt acctccataa 300
 cttcgatcag tcaacattca atgcattaac tgtggaaaaa gttagagggtg caacgcta 358

<210> 2741
 <211> 251
 <212> nucleic acid
 <213> Glycine max
 <220>
 <221> unsure
 <222> (215), (224), (236)
 <223> unsure at all n locations
 <400> 2741

acagtttgat ggtgagagggt gatgtgtggt ttgggggctaa tattactttg aaggggcaag 60
 tgactattgc tgcaaaacct ggcttgaaat tggaaattcc tgatgggggtg acgattgaga 120
 ataaggagat caacgaccct gcagatatct aaggatgaat gttgtcgaat tgctgagatt 180
 tgggtccagtg atacatgact gctgaacttt gattnccagg caanacattt agttgnccct 240
 ttgccccccc c 251

<210> 2742
 <211> 256
 <212> nucleic acid
 <213> Glycine max
 <400> 2742

caaagctagg gcaaactctg aaaacccttc tattgaactt gggccagaat ttaagaaggt 60
 tagcaacttc ttggggcgct tcaagtcaat tcccagtatt gttgagcttg acagtctaaa 120
 agtggctggc aatgtatggt ttggagatgg tggtatcctc aagggaaaaa tcagtatcgt 180
 ggccaatcct ggtgttaagc tggaagttcc cgatgggtgct gtcatttcgg ataaggaaat 240
 taatggccca gaggac 256

<210> 2743
 <211> 264
 <212> nucleic acid
 <213> Glycine max
 <400> 2743

ctggcctttt gttctcgtgt caatttctaa atccaccacc acacctctc ttctattctc 60
 tattattatt atctccacac ccttcaactct ccctcagtct tctctogaat cttccaccgc 120
 aatggccacc cctgccgaga aactctccgc tctcaaatcc gccgtcgccg gattgaacga 180
 aatcagttag aatgagaaga acggattcat cagcctcgtc ggccgctatc tcagtggcga 240
 acgcagcatg tggaatggag caag 264

<210> 2744
 <211> 253
 <212> nucleic acid
 <213> Glycine max
 <400> 2744

agtatatcct agtgttgaag tcggacaatg tggcaacagt ccttgatcca aacatactaa 60
 atcatttgat gataaatgat attgaatatt gcatggaggt gacaccaagc aattcgttta 120
 atttaatggt acccacaacg aaatttaagc ttcgggagat tgggtggagac caagataaac 180
 acttgaagga caatttcaaa ctcatcgata caacaaacat gtgggtgagt ttaagagcca 240
 tcaagagggt tgt 253

<210> 2745
 <211> 243
 <212> nucleic acid
 <213> Glycine max
 <400> 2745

caaatctgca attgatattt gtgatggact gacatatctg gatttgatca ttaaccagat 60
 tgagaccctc aattccaagt atggaagcag ggttccattg cttcttttca ataaagatga 120
 cattcatgat agttctctaa aggttttggga gaagtattct aaatcaagtg ttgaagtgca 180
 cactttttaa caggggtgaag atcgagagtt gaaatcattg ggtgaatata tagcaaggag 240
 gaa 243

<210> 2746
 <211> 255
 <212> nucleic acid
 <213> Glycine max

<400> 2746

tcctccgtcg ctgcattgag ccaaatacgt gagaatgaga agaattggatt cacaagcctc 60
 gttgctcggtt acctcagtgg cgaagacagc atgttgagtg gagtaagatc gagacgccta 120
 cggatgaagt agtgggtgcct tatgactcctt tggcaccgac tcctgacggg tctttggagg 180
 tgaagaacct cttggacaag cttgtgggtgt tgaagctcaa tggaggcttg gggacaacta 240
 tgggttgtag tggcc 255

<210> 2747
 <211> 260
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (5)...(6)
 <223> unsure at all n locations

<400> 2747

ggagnngtat tctaaatcaa gtgttgaagt gcacactttt aaacaggggtg aagatcgaga 60
 gttgaaatca ttgggtgaat attatagcaa ggaggaagtg catccatttg atgatgttga 120
 tgtgttccgt ttactaatga ctgggtggaac ccttgattca ttattatcac agggtaagga 180
 gtatatccta gtgttgaagt cggacaatgt ggcaacagtc cttgatccaa acatactaaa 240
 tcatttgatg ataaatgata 260

<210> 2748
 <211> 282
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (116)
 <223>

<400> 2748

atgaactcat tcaacactca tgatgacact caaaagattg ttgagaaata taaaaactca 60
aatattgaga ttcatagcgt taaccagagt caatatcctc gtttggttgt tgatgncttt 120
ttgccattcc catccaaggg gcagacaggg agggacgggt ggtaccctcc tggccacgga 180
gacgtcttcc catcattagt gaatagtgga aagcttgatg tgctattatc acagggtaag 240
gagtatgtgt ttgttgccaa ttcagacaac ctggtgctgt ag 282

<210> 2749
<211> 240
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (22), (52), (64), (66), (75), (131), (150), (166), (181), (191),
(193), (201), (205), (207), (212), (214) ... (215), (220), (225),
(233), (239)
<223> unsure at all n locations

<400> 2749

cttccaccgc aatggccacg gngccgagaa actctccgct ctcacatccg cngtcgccg 60
attnancgaa atcantgaga atgagaagaa cggattcatc agcctcgtcg gccgctatct 120
cagtggcgaa ngcagcatgt ggaatggagn aagatccaga cgctanggac gaatggttgt 180
ncctacgaca ntnggcgcca nctcngnagg tncnnggggn aaatnatgga aanctgtgnt 240

<210> 2750
<211> 275
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (67), (86) ... (87), (92)
<223> unsure at all n locations

<400> 2750

aattttctaaa tccaccacca caccctctct tctcttctct tctctccact caacacaacg 60
tcgcctnctt cttctctcga accctnnagc gnaatgacca cccgcaccga gaagctctcc 120
gctctcaaat ccgccgtcgc cggatcgaa gaaatcagtg agagtgagaa gaacccattc 180
atcagcctcg tcagccgcta tctcagtgga gaacgcagca tgtggaatgg agcaagatcc 240

275

<400> 2751

<400> 2752

<400> 2753

ctcgcgtctc	aaatccgccc	tgcgcggatt	gaacgaaatc	agtgagaatg	agaagaacgg	60
attcatcagc	ctcgtcggcc	gctatctcag	tggcgaacgc	agcatgtgga	atggagcaag	120
atccagacgc	ctacggacga	agtggttgtg	ccttacgaca	ctttggcgcc	aactcctgaa	180
ggttcttcgg	aggtgaagaa	tctattggac	aagcttqtgg	tgttqaagct	aaatggaggc	240

ttgggaacaa ctatgggttg cactgggcct aaatctg

277

<210> 2754
<211> 245
<212> nucleic acid
<213> Glycine max

<400> 2754

ccctcgagcc gaatcggtc gagcggctcg agcgtatct cagtggaccc gcagatgtgg 60
actggagcaa gatccagacg actacggacg acagtgggtg tgccttacga cactttggcg 120
ccaactcctg aaggttcttc ggaggtgaag aatctattgg acaagcttgt ggtgttgaag 180
ctaaatggag gcttgggaac aactatgggt tgcactggtc ctaaactctgt aattgaagtt 240
cgtga 245

<210> 2755
<211> 270
<212> nucleic acid
<213> Glycine max

<400> 2755

ttccaccgca atggccaccg ctgccgagaa actctccgct ctcaaaccg ccgtcgccgg 60
attgaacgaa atcagtgaga ctgagaagaa cggattcatc agcctcgtcg gccgctatct 120
cagtggcgaa cgcagcatgt ggaatggagc aagatccaga cgcctacgga cgaagtgggt 180
gtgccttacg acactttggc gccaaactct gaaggttctt cggaggtgaa gaatctattg 240
gacaagcttg tgggtgttgaa gctaaatgga 270

<210> 2756
<211> 219
<212> nucleic acid
<213> Glycine max

<400> 2756

cgccaccgct gccgagaaac tctccgctct caaatccgcc gtcgccggat tgaacgaaat 60
cagtgagaat gagaagaacg gattcatcag cctcgtcggc cgctatctca gtggcgaacg 120
cagcatgtgg aatggagcaa catccagacg cctacggacg aagtggttgt gccttacgac 180
actttggcgc caactcctga aggttcttcg gaggtgaag 219

<210> 2757
 <211> 217
 <212> nucleic acid
 <213> Glycine max
 <400> 2757
 accgcaatgg ccaccgctgc cgagaaaactc tccgctctca aatccgccgt cgccggattg 60
 aacgaaatca gtgagaatga gaagaacgga ttcacacagcc ttgtcggccg ctatctcagt 120
 ggcgaacgca gcatgtggaa tggttcaaga tccagacgcc tacggacgaa gtggttgtgc 180
 cttacgacac tttggcgcca actcctgaag gttcttc 217

<210> 2758
 <211> 286
 <212> nucleic acid
 <213> Glycine max
 <400> 2758
 ctggcctttt gttctcgtgt caatttctaa atccaccacc acacactctc ttctattctc 60
 tattattatt atctccacac ctttcaactct ctctcaactct tctctcgaat cttccaccgc 120
 aatggccacc gctgccgaga aactctccgc tctcaaattcc gccgtcgccg gattgaacga 180
 aatcagtgag aatgagaaga acggattcat cagcctcgtc ggccgctatc tcagtggcga 240
 acgcagcatg tggaatggag caagtccaga cgcctacgga cgaatg 286

<210> 2759
 <211> 262
 <212> nucleic acid
 <213> Glycine max
 <400> 2759
 cttcaactctc tctcaactctt ctctcgaatc ttccaccgca atggccacca ctgccgagaa 60
 actctccgct ctcaaattccg ccgtcgccgg attgaacgaa atcagtgaga atgagaagaa 120
 cggattcatc agcctcgtcg gccgctatct cagtggcgaa cgcagcatgt ggaatggagc 180
 aagatccaga cgcctacgga cgaagtggat gtgcctacac gacactttgg cgccaactcc 240
 tgaaggttct tcggaagtga ag 262

<210> 2760

<211> 263
 <212> nucleic acid
 <213> Glycine max

<400> 2760

ctggcctttt gttctcgtgt caattttctaa atccaccacc acaccctctc ttctattctc 60
 tattattatt atgtccacac ctttcaactct gtctcaactct tctctcgaat cttccaccgc 120
 aatggccacc cctgccgaga aactctccgc tctcaaatec gccgtcgccg gattgaacga 180
 aatcagttag aatgagaaga acggattcat cagcctcgtc ggccgctatc tcagtggcga 240
 acgcagcatg tggaatggag caa 263

<210> 2761
 <211> 259
 <212> nucleic acid
 <213> Glycine max

<400> 2761

ctggcctttt gttctcgtgt caattttctaa atccaccacc acaccctctc ttctattctc 60
 tattattatt atctccacac ctttcaactct ctctcaactct tctctcgaat cttccaccgc 120
 aatggccacc gatgccgaga aactctccgc tctcaaatec gccgtcgccg gattgaacga 180
 aatcagttag aatgagaaga acggattcat cagcctcgtc ggccgctatc tcagtggcga 240
 acgcagcatg tggaatgga 259

<210> 2762
 <211> 243
 <212> nucleic acid
 <213> Glycine max

<400> 2762

cgtgtcaatt tctaaatcca ccaccacacc ctctcttcta ttctctatta ttattatctc 60
 cacacccttc actctctctc actcttctct cgaatcttcc accgcaatgg ccaccgctgc 120
 cgagaaactc tccgctctca aatccgccgt cgcgggattg aacgaaatca gtgagaatga 180
 gaagaacgga ttcatcagcc tcgtcggccg ctatctcagt ggccaacgca gcatgtggaa 240
 tgg 243

<210> 2763

<211> 254
 <212> nucleic acid
 <213> Glycine max

<400> 2763

ctggcctttt gttctcgtgt caattttctaa atccaccacc acaccctcac ttctattctc 60
 tattattatt atctccacac ccttcactct ctctcactct tctctcgaat cttccaccgc 120
 aatggccacc cctgcccaga aactctccgc tctcaaatcc gccgtcgccg gattgaacga 180
 aatcagttag aatgagaaga acggattcat cagcctcgtc ggccgctatc tcagtggcga 240
 acgcagcatg tggg 254

<210> 2764
 <211> 268
 <212> nucleic acid
 <213> Glycine max

<400> 2764

ctggcctttt gttctcgtgt caattttctaa atccaccacc acaccctctc ttctattctc 60
 tattattatt atctccacac ccttcactct ctctcactct tctctcgaat cttccaccgc 120
 aatggccacc cctgcccaga aactctccgc tctcaaatcc gccgtcgccg gattgaacga 180
 aatcagttag aatgagaaga acggattcat cagcctcgtc ggccgctatc tcagtggcga 240
 aggcagcatg tggactggag caagatcc 268

<210> 2765
 <211> 243
 <212> nucleic acid
 <213> Glycine max

<400> 2765

actacactgg ccttttgttc tcgtgtcaat ttctaaatcc accaccacac cctctcttct 60
 attctctatt attattatct ccacaccctt cactctctct cactcttctc tcgaatcttc 120
 caccgcaatg gccaccgctg ccgagaaaact ctccgctctc aaatccgccc tcgcccggatt 180
 gaacgaaatc agtgagaatg agaagaacgg attcatcagc ctgctcgccc gctatctcag 240
 tgg 243

<210> 2766

<211> 266
 <212> nucleic acid
 <213> Glycine max

<400> 2775

gtggcacttt gatttcttac gaaggaaggg ttcagctcct ggaaattgca caagtccccg 60
 atgaacatgt caatgagttc aagtcaatag agaagttcaa aattttcaac acaaataatt 120
 tgtgggtgaa cttaaacgca gttaaaaggc ttgttgaagc tgatgctctt aagatggaaa 180
 ttattcccaa tccaaaggaa gttgacggaa taaaagttct tcagctggaa actgcagctg 240
 gtgctgcaat aaggttcttt gacaag 266

<210> 2776
 <211> 251
 <212> nucleic acid
 <213> Glycine max

<400> 2776

gtggcacttt gatttcttac gaaggaaggg ttcagctcct ggaaattgca caagtccccg 60
 atgaacatgt caatgagttc aagtcaatag agaagttcaa aattttcaac acaaataatt 120
 tgtgggtgaa cttaaacgca gttaaaaggc ttgttgaagc tgatgctctt aagatggaaa 180
 ttattcccaa tccaaaggaa gttgacggaa taaaagttct tcagctggaa actgcagctg 240
 gtgctgcaat a 251

<210> 2777
 <211> 253
 <212> nucleic acid
 <213> Glycine max

<400> 2777

cttttggaat ttgcacaagt cccagatgaa catgtcaatg agttcaagtc aatagagaag 60
 ttcaaaatgt tcaacacaaa taatttgtgg gtgaacttaa atgcagttaa aaggcttggt 120
 gaagctgatg ctcttaagat ggaaattatt cccaatccta aggaagttga tggaataaaa 180
 gttcttcagc tggaaactgc agctgggtgt gcaataaggt tctttgacaa ggctattggg 240
 attaattgtc etc 253

<210> 2778

<211> 249
 <212> nucleic acid
 <213> Glycine max

<400> 2778
 ggggtggcact ttgatttctt acgaaggaag ggttcagctc ctggaaattg cacaagtccc 60
 cgatgaacat gtcaatgagt tcaagtcaat agagaagttc aaaattttca acacaaataa 120
 tttgtgggtg aacttaaacy cagttaaaag gcttggtgaa gctgatgctc ttaagatgga 180
 aattattccc aatccaaagg aagttgacgg aataaaaagtt cttcagctgg aaactgcagc 240
 tgggtgctgc 249

<210> 2779
 <211> 275
 <212> nucleic acid
 <213> Glycine max

<400> 2779
 acctgcgaga agacgacaga agggcccgat gaacatgtca atgagttcaa gtcaatagag 60
 aagttcaaaa ttttcaacac aaataatttg tgggtgaact taaacgcagt taaaaggctt 120
 gttgaagctg atgctcttaa gatggaaatt attcccaatc caaaggaagt tgacggaata 180
 aaagttcttc agctggaaac tgcagctggt gctgcaataa gggtctttga cagggctatt 240
 gggattaatg ttctcgcac acgattcctt cctgt 275

<210> 2780
 <211> 276
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (45)
 <223>

<400> 2780
 ctttgacaag gctattggga ttaatgttcc tcgatcacga ttcntcctg tgaaggcaac 60
 ttcagatttg cttctgtgcc agtctgacct ctacactttg gaagacggat ttgtcattcg 120
 gaacaaagct agggaaaatc ctgaaaaccc ttctattgaa ctgggaccag aatttaagaa 180
 ggtagcaac ttcttgggcc gcttcaagtc aattcctagt atcgttgagc ttgacagtct 240

aaaagtggct ggtgatgtat ggtttggagc tgggtg 276

<210> 2781
<211> 279
<212> nucleic acid
<213> Glycine max

<400> 2781

ccaatccaaa ggaagttgac ggaataaaaag ttcttcagct ggaaactgca gctggtgctg 60
caataagggt ctttgacaag gctattggga ttaatgttcc tcgatcacga ttccttcctg 120
tgaaggcaac ttcagattgc ttcttgtcca gtctgacctc tacactttgg aagacggatt 180
tgtcattcgg aacaaagcta gggaaaatcc tgaaaaccct tctattgaac tgggaccaga 240
atttaagaag gtttagcaact tcttgggccg cttcaagtc 279

<210> 2782
<211> 273
<212> nucleic acid
<213> Glycine max

<400> 2782

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ataacttggg agctatagtt gacttgaaaa tcttgaatca tttgatccag aacaagaatg 120
aatactgtat ggaggtgact cccaaaacat tggctgatgt aaaggggtggc actttgattt 180
cttacgaagg aagggttcag ctcttgaaa ttgcacaagt ccccgatgaa catgtcaatg 240
agttcaagtc aatagagaag ttcaaaattt tca 273

<210> 2783
<211> 277
<212> nucleic acid
<213> Glycine max

<400> 2783

tacggctgcg agaagacgac agaagggagg gtaaagagta tgtgtttggt gccaatcgg 60
ataacttggg agctatagtt gacttgaaaa tcttgaatca tttgatccag aacaagaatg 120
aatactgtat ggaggtgact cccaaaacat tggctgatgt aaaggggtggc actttgattt 180
cttacgaagg aagggttcag ctcttgaaa ttgcataagt ccccgatgaa catgtcaatg 240

agttcaagtc aatagagaag ttcaaaattt tcaacac

277

<210> 2784
<211> 270
<212> nucleic acid
<213> Glycine max

<400> 2784

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gttcaagtca atagagaagt tcaaaatttt caacacaaat aatttgtggg tgaacttaaa 120

cgcagttaaa aggcttggtg aagctgatgc tcttaagatg gaaattattc ccaatccaaa 180

ggaagttgac ggaataaaaag ttcttcagct ggaaactgca gctggtgctg caataagggtt 240

ctttgacaag gctatgggat taatgttcct 270

<210> 2785
<211> 292
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (15)
<223>

<400> 2785

cttaaacgca gttanaaagg cttgttgaag ctgatgctct taagatggaa attattccca 60

atccaaagga agttgacgga ataaaagttc ttcagctgga aactgcagct ggtgctgcaa 120

taaggttcctt tgacaaggct attgggatta atgttcctcg atcacgattc cttcctgtga 180

aggcaacttc agatttgctt cttgtccagt ctgacctcta cactttggaa gacggatttg 240

tcatcggaac aaagctaggg aaaatcctga aaaccttcta tgaactggga ca 292

<210> 2786
<211> 191
<212> nucleic acid
<213> Glycine max

<400> 2786

gtaaaggggtg gcactttgat ttcttacgaa ggaaggggtc agctcctgga aattgcaaag 60

tccccgatga acatgtcaat gagttcaagt caatagagaa gttcaaaaatt ttcaacacaa 120
 ataatttgtg ggtgaactta aacgcagtta aaaggcttgt tgaagctgat gctcttaaga 180
 tggaaattat t 191

<210> 2787
 <211> 130
 <212> nucleic acid
 <213> Glycine max

<400> 2787

attcggataa cttgggagct atagttgact ggaaaaatctt gaatcatttg atccagaaca 60
 agaatgaata ctgtatggag gtgactccca aaacattggc tgatgtaaag ggtggcactt 120
 tgactttctta 130

<210> 2788
 <211> 253
 <212> nucleic acid
 <213> Glycine max

<400> 2788

gacggatttg tcattcggaa caaagctagg gaaaaatcctg aaaacccttc tattgaactg 60
 ggaccagaat ttaagaaggt tagcaacttc ttgagtcgct acatcacctg tcctagtaac 120
 ggacatcatg cttccctaaa agttgctaata catctatagt tctgagcctc gttcatcctc 180
 aagggggacca tcatcattgt atcaaaaacc ggtgttaagc tataagttcc cgacgggtgtt 240
 gccattgtag aca 253

<210> 2789
 <211> 236
 <212> nucleic acid
 <213> Glycine max

<400> 2789

cttttttgcca ttcccatcca agggggcagac aggcagggac ggggtgagtag ctccctggcca 60
 eggagacgtc ttcccatcat tagtgaatag tggaaaagctt gatgtgctat tatcacaggg 120
 taaggagtat gtgtttgttg ccaattcaga caacctgggt gctgtagtgt acttgaaaat 180
 cttaaatacat ttgattgagc acaagaatga atactgtatg gaggtcactc ccaaga 236

The first two steps are the most important. The first step is to identify the problem. The second step is to define the problem. The third step is to identify the causes of the problem. The fourth step is to identify the effects of the problem. The fifth step is to identify the stakeholders involved in the problem. The sixth step is to identify the resources available to solve the problem. The seventh step is to identify the constraints on the problem. The eighth step is to identify the risks associated with the problem. The ninth step is to identify the opportunities associated with the problem. The tenth step is to identify the solutions to the problem. The eleventh step is to identify the implementation plan for the solutions. The twelfth step is to identify the monitoring and evaluation plan for the solutions. The thirteenth step is to identify the communication plan for the solutions. The fourteenth step is to identify the reporting plan for the solutions. The fifteenth step is to identify the feedback plan for the solutions. The sixteenth step is to identify the improvement plan for the solutions. The seventeenth step is to identify the sustainability plan for the solutions. The eighteenth step is to identify the exit plan for the solutions. The nineteenth step is to identify the closure plan for the solutions. The twentieth step is to identify the final plan for the solutions.

acaggcacg	g	acgggtg	g	ccctcct	g	cacggag	a	c	tcttcc	a	attagt	g	60
agtggaa	a	gtgat	g	attat	c	ggtaag	g	atgtg	t	tgcca	a	120	
gacaac	c	gtgct	g	tgact	t	atctta	a	atttg	a	gcaca	a	180	
gaata	c	tggag	g	tccca	a	ttggc	t	tgaa	a	g	240		
tcttat	g	aag	g								253		

<400> 2791

cgacaagcctt	gtggtgttga	agctaaatgg	aggcttgggc	acaactatgg	gttgacttgg	60
tcctaaatct	gtaattgaag	ttcgtgatgg	gttgacattt	ctagatttaa	ttgtgatcca	120
gattgagaat	ctcaattcca	aatatggaag	caatgttctt	ttgcttttga	tgaattcatt	180
caacactcat	gatgacactc	aaaagattgt	tgaaaaatac	caaaactcca	atattgagat	240
tcatactttt	aaccagagcc	agtatcctcg	attggttgct	gag		283

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<220>
<221>      unsure
<222>      (226)
<223>
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<400> 2792

975

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cagtatcttc gattgggtgc tgagggaactt ttggcattg ccttccaaag ggcatactga 300
caagga 306

<210> 2793
<211> 263
<212> nucleic acid
<213> Glycine max

<400> 2793

gacaaggatg gatggtaccc tcctggccat ggagatgtct ttccatcatt attgaacagt 60
ggcaaacttg atgcactatt gtcacagggt aaagagtatg tatttggtgc caattcagat 120
aacttgggag ctatagttga cttgaaaatc ttaaattcatt tgatccagaa caagaatgaa 180
tactgtatgg aggtgactcc caaaacattg gctgatgtaa aggggtggcac ttgattttct 240
tacgaaggaa ggggttcagct ttt 263

<210> 2794
<211> 274
<212> nucleic acid
<213> Glycine max

<400> 2794

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aagggcatac tgacaaggat ggatggtacc ctctggcca tggagatgtc tttccatcat 120
tattgaacag tggcaaactt atgcactatt gtcacagggt aaagagtatg tatttggtgc 180
caattcagat aacttgggag ctatagttga cttgaaaatc ttaaattcatt gatccagaac 240
aagaatgaat actgtatgga ggtgactccc aaaa 274

<210> 2795
<211> 273
<212> nucleic acid
<213> Glycine max

<400> 2795

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caaatatgga agcaatgttc ctttgctttt gatgaattca ttcaacactc atgatgacac 120

tcaaaagatt gttgaaaaat accaaaactc aaatattgag attcatactt ttaaccagag 180
 ccagtatcct cgattgggtg ttgaggactc tttgccattg cttccaaag ggcatactga 240
 caaggatgga tggtagcctc ctggccatgg tga 273

<210> 2796
 <211> 254
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (251)
 <223>

<400> 2796

aattgaagtt cgtgatgggt tgacatttct agatttaatt gtgatccaga ttgagaatct 60
 caattccaaa tatggaagca atgttccttt gcttttgatg aattcattca aactcatga 120
 tgacactcaa aagattggtg aaaaatacca aaactccaat attgagattc atacttttaa 180
 ccagagccag taccctcgat tggttgctga ggactttttg ccattgcctt ccaaagggca 240
 tactgacaag natg 254

<210> 2797
 <211> 274
 <212> nucleic acid
 <213> Glycine max

<400> 2797

ccaaaactcc aatattgaga ttcatacttt taaccagagc cagtatcctc gattgggtgc 60
 tgaggacttt ttgccattgc cttccaaagg gcatactgac aaggatggat ggtaccctcc 120
 tggccatgga gatgtctttc cacattattg aacagtggca aacttgatgc actattgtca 180
 cagggtaaag agtatgtatt tggtgccaat tcagataact tgggagctat agttgacttg 240
 aaaatcttaa atcatttgat ccagaacaag aatg 274

<210> 2798
 <211> 243
 <212> nucleic acid
 <213> Glycine max

<400> 2798
ccagattgag aatctcaatt ccaaatatgg aagcaatggt cctttgcttc tgatgaattc 60
attcaacact catgatgaca ctcaaaagat tgttgaaaaa taccaaaact ccaatattga 120
gattcatact ttttaaccaga gccagtatcc tcgattgggt gctgaggact ttttgccatt 180
gccttccaaa gggcatactg acaaggatgg atggtaccct cctggccatg gagatgtcct 240
tcc 243

<210> 2799
<211> 253
<212> nucleic acid
<213> Glycine max

<400> 2799
caagggcata ctgacaagga tggatggtac cctcctggcc atggtgatgt cttcccatca 60
ttattgaaca gtggcaaact tgatgcacta ttgtcacagg gtaaagagta tgtgtttgtt 120
gccaatcggg ttaacttggg agctatagtt gacttgaaaa tcttgaatca tttgatccag 180
aacaagaatg aatactgtat ggaggtgact cccaaaacat tggctgatgt aaaggggtggc 240
actttgattt ctt 253

<210> 2800
<211> 246
<212> nucleic acid
<213> Glycine max

<400> 2800
caaaagattg ttgaaaaata ccaaaactca aatattgaga ttcatacttt taaccagagc 60
cagtatcctc gattgggtgt tgaggacttt ttgccattgc cttccaaagg gcatactgac 120
aaggatggat ggtaccctcc tggccatggt gatgtcttcc catcattatt gaacagtggc 180
aaacttgatg cactattgtc acatggtaaa gagtatgtgt ttgttgccaa ttcggataac 240
ttggga 246

<210> 2801
<211> 265
<212> nucleic acid
<213> Glycine max

<400> 2801
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 gcttggggaac aactatgggt tgcactgggtc ctaaattctgt aattgaagtt cgtgatgggt 120
 tgacattttct agattttaatt gtcattccaaa ttgagaatct caattccaaa tatggaagca 180
 atgttccttt gcttttgatg aattcattca acactcatga tgacactcaa aagattggtg 240
 aaaaatacca aaactcaaatt attga 265

<210> 2802
 <211> 261
 <212> nucleic acid
 <213> Glycine max

<400> 2802
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 tatggaagca atgttccttt gcttttgatg aattcattca acactcatga tgacactcaa 120
 aagattggtg aaaaatacca aaactccaat attgagattc atacttttaa ccagagccag 180
 tatcctcgat tggttgctga ggactttttg ccattgcctt acaaagggga tactgactcc 240
 gatggctggg accctcctgg c 261

<210> 2803
 <211> 195
 <212> nucleic acid
 <213> Glycine max

<400> 2803
 gatgaattca ttcaacactc atgatgacac tcaggagatt gttgaaaaat accagaactc 60
 aaatattgag attcatactt ttaaccagag ccagtatcct cgattgggtg ttgaggactt 120
 tttgccattg ccttccaaag ggcatactga caaggatgga tggtagcctc ctggccatgg 180
 tgatgtcttc ccatc 195

<210> 2804
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<400> 2804

gttgaagcta aatggaggct tgggcacaac tatgggttgc actggtccta aatctgtaat 60
 tgaagtctgt gatgggttga catttctaga ttgaatggtg atccagattg agaatctcaa 120
 ttccaaatat ggaagcaagt tcctttgctt ttgatgaatt cattcaacac tcatgatgac 180
 actcaaaaga ttgttgaaaa ataccaaaac tccaatattg agattcatac ttttaaccag 240
 agccagtatc ctcgattggt tgcgtg 265

<210> 2805
 <211> 262
 <212> nucleic acid
 <213> Glycine max

<400> 2805

gcaatgtatg gtttggagct ggtgttatcc tcaagggaaa aatcagtatc gtggccaatc 60
 ctggtgttaa gctggaagtt cccgatggtg ctgtcatttc ggataaggaa attaattggcc 120
 cagaggacct cctgtgagga agcccgtga gtttagaagt atcagactgt atactatctt 180
 tatggtctca tgttttttcc aattattact actcccaagt ttgatgggca aagaaaataa 240
 gtcccttttt gtttgtcttc tg 262

<210> 2806
 <211> 249
 <212> nucleic acid
 <213> Glycine max

<400> 2806

gctggtgtta tcctcaaggg aaaaatcagt atcgtggcca atcctggtgt taagctggaa 60
 gttcccgatg gtgctgtcat ttccgataag gaaattaatg gccagagga cctcctgtga 120
 ggaagccgc tgagttttaga agtatcagac tgtatactat ctttatgggc tcatgttttt 180
 tccaattatt actactcca agtttgatgg gcaaagaaaa taagtcctt tttgtttgtc 240
 ttctgattc 249

<210> 2807
 <211> 183
 <212> nucleic acid
 <213> Glycine max

<400> 2807

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gcttgacagt ctaaaagtgg caggcgatgt atggtttgga gctgggtgtaa tccttaaggg 120
aaaagcaagt attcttgcaa aaccgggtgt gaagctggaa atacctgacg gagctgtgat 180
cgc 183

<210> 2808
<211> 184
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (6)...(8)
<223> unsure at all n locations

<400> 2808

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cctaacctaa gcatttggtc cgagccttcc tttaaacctt agccgtagc ctgaatgggt 120
ggatgaagacc ttttggaat ggccttccaa aggccttcct gccaaagggtg gttggtacct 180
tcct 184

<210> 2809
<211> 389
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (340)
<223>

<400> 2809

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caagagggtt gttgacactg ttgaagtaag gcagaagaag ccctcatttt caaaggacac 120
agcagctgga ccagcaataa agttctttga taatgtatgt ggtgtctccg tgcccgaatc 180
tcgctttctt cccttggtatg caacatcaga tctattactt cttcagtcag atctatacac 240
ttgtagagaa ggtgttttaa ctcgaaatcc agctagaact aaccctttta atcctgtgat 300
agacttggga cctgaatttg aaaagtttgg tgactttcan agtcgcttca gatccattcc 360

002248-01609
609270-282260

aagcatcatt gaggttggac agtttgatg

389

<210> 2810
<211> 411
<212> nucleic acid
<213> Glycine max

<400> 2810

tcgagcttct tcttctctcg aatcttccac cgcaatgacc accgccaccg agaagctctc 60
cgctctcaaa tccgccgtcg ccggattgaa cgaaatcagt gagagtgaga agaacggatt 120
catcagcctc gtcagccgct atctcagtgg cgaagcgcag catgtggaat ggagcaagat 180
ccagacgcct acggacgaag tggttgtgcc ttacgacact ttggcgccaa ctctgatgg 240
ttcttcggac gtgaagaatc tattggacaa gcttgtggtg ttgaagctaa atggaggctt 300
gggcacaact atggggttgca ctggctctaa atctgtaatt gaagttcgtg atggggttgac 360
atttctagat ttaattgtga tccagattga gaatctcaat tccaaatatg g 411

<210> 2811
<211> 358
<212> nucleic acid
<213> Glycine max

<400> 2811

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gaacatgtca atgagttcaa gtcaatagag aagttcaaaa ttttcaacac aaataatttg 120
tgggtgaact taaatgcagt taaaaggctt gttgaagctg atgctcttaa gatggaaatt 180
attcccaatc caaaggaagt tgatggaata aaagttcttc agctggaaac tgcagctggt 240
gctgcaataa ggttctttga caaggctatt gggattaatg ttctctgatc acgattcctt 300
cctgtgaagg caacttcaga tttgcttctt gtccagtctg acctctacac tttggaag 358

<210> 2812
<211> 404
<212> nucleic acid
<213> Glycine max

<400> 2812

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tacaggacaa gcaagtat ttgcataacc ggggtgtgaag ctggaaatac ctgac

415

1

2

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